EXHIBIT B

SUPPLEMENTAL EXPERT REPORT ON ALLOCATION WITH RESPECT TO EXXON'S BAYTOWN AND BATON ROUGE REFINERY AND CHEMICAL COMPLEXES

MATTHEW A. LOW

January 31, 2020

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I. INTRODUCTION

The purpose of this report is to conform my allocation analysis with the Court's August 17, 2018 Summary Judgment Opinion, which stated that the court will apply a production-based model, using the crude throughput capacity at each facility as a surrogate for the amount of hazardous substances generated each year. This report supplements my reports dated August 10, 2012, November 16, 2012, and January 30, 2017, my deposition testimony, and my declarations dated December 20, 2013, and December 8, 2017 submitted in support of the government's motions for summary judgement.

In this report, I describe the production-based spreadsheet that I created that replicates Exxon's series of production-based spreadsheets. I intend to refer to this spreadsheet in my trial testimony. The spreadsheet recreates a working form of Mr. White's allocation model, with his inputs, in Microsoft Excel format.[1] I also have updated my inputs and allocation calculations into this spreadsheet and created a summary sheet that should allow the Court to more easily compare the differences between the inputs that I believe are appropriate and the inputs relied on by Mr. White. These inputs include those related to waste reduction multipliers and delay factors, which are included in Mr. White's allocation.

Along with discussion of the updated spreadsheet, this report also includes supplemental discussion concerning facts relevant to allocation of certain of the cost components (or cost units) claimed by Exxon, which, in some cases, have caused me to adjust the allocation percentages for these cost components.

Attachment 1 is a list of documents I have relied on or considered for this report.

II. SUMMARY OF PRODUCTION-BASED SPREADSHEET REPLICATING EXXON'S ALLOCATION

The spreadsheet that I have generated first calculates what I refer to as Mr. White's "Contract Base Case" for Baytown and Baton Rouge Refinery past costs. The basic component of the spreadsheet is a single **Refinery Allocation** worksheet, formulated as follows:

[1] Versions of this spreadsheet are marked as Attachment 2, Baytown White Contract Replication, Attachment 3, Baytown Low Inputs, Attachment 4, Baton Rouge White Contract Replication and Attachment 5, Baton Rouge Low inputs. They update and replace any previous attachments to my expert reports and declarations that replicated Mr. White's production-based spreadsheets.

- Columns numbered 1-12 show the year-by-year crude throughput and the adjustments and multipliers relied on by Mr. White to lower the response cost impacts of the years after joint U.S./Exxon involvement. These columns calculate the year-by-year percentage of response costs, denoted by Mr. White as his "cost to years (formerly denoted "intra-class") allocation. The term "cost to years" as used by Mr. White, is equivalent to the term "response cost impact" of each year, which is the term used most frequently in my prior reports. This is also what is referred to by the Court as Step 1 of the allocation analysis (assigning shares of waste to the various years of plant operation).

- Columns 13-24 show Mr. White formerly denoted as "inter-class" multipliers for what he terms the "federal period," 1941-1955. Mr. White's use of the term "inter-class" allocation is similar to my use of the term "degree of involvement" in allocating between the U.S. and Exxon for the periods of joint U.S./Exxon involvement.[2] These columns include what is referred to by the Court as Step 2 (determining what portion of cost that are associated with the period of United States involvement and are attributable to war products for the United States is responsible) and Step 3 (equitably dividing the portion of wartime related costs subject to allocation based on the parties respective degree of involvement) of the allocation analysis. The term "federal period" is simply Mr. White's term for the period of joint U.S./Exxon involvement. Inputs include the most relevant "inter-class" multipliers: the percentage of crude throughput attributed to 100 Octane Avgas and Other War Products counted in the allocation to the U.S.; the percentage impact on refinery unit response costs distributed between the Refinery operations and Plancor operations, the percentage of each year's crude throughput attributed to Mr. White's "delay factor" and the share allocated to the U.S. for the Refineries and Plancors during each year of federal involvement.

As shown in Attachment 2, for Baytown, and Attachment 4, for Baton Rouge, using this version of Mr. White's framework and his assumptions in what he terms the "contract case," I calculate a "Base Case" U.S. allocation percentage of 29.67% at Baytown and 19.39% at Baton Rouge.[3]

The Excel workbook is designed to facilitate, for the Court's convenience, placing a serious of key inputs that can be adjusted based on the Court's findings ("switches") and the resulting allocation share and monetary payout on the front page, while the remainder of the calculations required to work Mr. White's model are performed on the accompanying worksheets. The worksheets behind the **Switch** worksheet, however, are fully transparent and subject to examination to confirm that the spreadsheet calculations are working as intended. The individual inputs on the **Switch** worksheet are meant to allow for adjustments with regard to issues or variables that are disputed, so that the user can test results on particular changes in real

[2] Mr. White appears in his more recent reports to have substituted the term "costs subject to allocation" in Step 2 of his analysis and "degree of involvement" or "equitable allocation" in Step 3 of his analysis.

[3] This is equal to the 29.67% in Mr. White's Baytown spreadsheet, and is comparable to 19.40% in Mr. White's Baton Rouge spreadsheet with the slight difference likely due to rounding, Thus, I believe I have fairly replicated Mr. White's inputs and calculations in my version of his framework.

time. In order to help with orientation regarding which part of the three-step allocation the Court proposes to use is being adjusted, I have organized the inputs so that they reflect Steps 1-3 in the Court's Summary Judgement Opinion.

Exxon's allocation analysis results in a single allocation percentage for each refinery that it suggests should be applied to 100% of the costs claimed at each refinery. As noted above, I refer to this percentage as the Base Case Contract percentage. However, as I have stated repeatedly in prior reports, depositions and declarations, in my opinion, Exxon, through Mr. White and other experts, has ignored relevant facts distinguishing the various cost components. In a number of cases, such relevant facts make application of a single Base Case refinery percentage wholly inappropriate. To that end, the spreadsheet that I have generated includes a **Costs and Relevant Facts** worksheet. This worksheet is linked to the **Switches** worksheet and allows further adjustment to account for relevant facts to equitably adjust the Base Case allocation for particular units. The adjustments affect only the unit addressed, and do not otherwise impact the Base Case calculations. A description of relevant facts and the equitable adjustment multipliers is included in the **Switches** and **Costs and Relevant Facts** worksheets. The relevant fact adjustments are referred to in the **Switches** worksheet as Step 3A.

Attachments 3, for Baytown, and 5, for Baton Rouge, include suggested inputs to the **Switches** worksheet. These inputs include a series of waste reduction multipliers that are equivalent to those resulting from a time of use analysis. However, the spreadsheet is set up to provide for inputs of alternative waste adjustment multipliers. In addition, these attachments assume that the delay factor is not included in calculating the United States share. However, the spreadsheet is set up so that some percentage of Mr. White's delay factor can be applied if the court finds it appropriate.

For some units claimed by Exxon, in my opinion, the relevant facts suggest that the U.S. should be awarded either 0% share or a minimal share based on the lack of a nexus to the contamination at issue. In such cases, I have included percentage inputs for consideration in the event the Court decides to allocate the United States more than a minimal share for the unit in question. However, the spreadsheet is set up so that different multipliers can be inputted.

III. DISCUSSION OF RELEVANT FACTS WARRANTING ADJUSTMENTS TO BASE ALLOCATION PERCENTAGE

In this section I describe relevant facts that I relied on to adjust the Base Case allocation percentages for certain units – which I have denoted as Step 3A in the allocation analysis.

A. Baytown -- SWMU 60 – Mitchell Point

In my January 30, 2017 Supplemental Report, I noted, among other things, that, according to Exxon reports, SWMU 60 was used during 1930-1947 as a disposal site for dredge

spoil from the Houston Ship Channel; from 1947-1973 as an earthwork, and from 1957-1973 as a landfarm and a staging area for transfer pipelines, and a disposal site for butyl rubber.[4]

I also noted that Exxon has not indicated how production during 1942-1955 impacted any dredging activities and, therefore, how Exxon's claimed response costs were impacted by production activities during that period and that, in the absence of evidence that would demonstrate that operations during the period of government involvement contributed contamination to this unit, in my opinion, there is no basis to attribute any response cost impact for this unit to the period of federal involvement.

My understanding is that Exxon has suggested that butyl rubber was disposed in this SWMU and that some of the rubber might have come from the period when the government owned the plant. I have reviewed additional documents that indicate that the remedy implemented at SWMU 60 was limited to the removal of two small soil "hot spots" and installation of an engineered soil cap over the majority of the former landfarming area, as shown in Exxon's July 21, 2011 Remedial Action Completion Report.[5] Soil excavation was limited to the upper two feet at the soil "hot spots." As shown, one of the areas excavated was outside the refinery boundary.

The excavation area outside the refinery boundary apparently was in an area discussed in a November1998 Arthur D. Little study. A.D Little analyzed soil samples from four areas in SWMU 60 for fingerprinting purposes, including an area that was referred to in the report as "butyl rubber land disposal area to the west."[6] The report concluded that the sample in was referred to as the "rubber area" provided a fingerprint for butyl rubber.[7] Exxon attempted to identify one or more analytes (i.e., tert-butyl alcohol and isoprene) that might be signatures for rubber waste or other wastes that originated in the Baytown Chemical Plant, which at least might have included wastes associated with the former Butyl Rubber (Plancor 1082) plant. However, analyses for these compounds during the Phase I RFI did not detect either analyte above its LOQs. As a result, both analytes were dropped from the Phase II sampling program.[8]

Exxon has not demonstrated that any waste driving the remediation in the landfarming area was from the federal involvement period. In addition, there is no evidence that the possible presence of rubber in one of the two small excavation areas was driven by rubber-related

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[4] Revised RCRA Facility Investigation Work Plan for Twenty-Two Solid Waste Management Units, June 15, 1998. ERM. BAYTECH-00003336, at 3472. The timeframe during which butyl rubber was disposed is not indicated.

[5] July 2011 Remedial Action Completion Report, BAYTECH-00179486 – 179489, 00179500

[6] BAYTECH-00045469.

[7] BAYTECH-00045473. However, data quality reports indicated that the samples used in this analysis exceeded the recommended EPA guideline temperatures for handling and preserving samples, and sample holding times were exceeded for some analytes (BAYTECH-00045480), putting into question whether sample analysis was compromised.

[8] BAYTECH-00007506.

chemicals. Confirmatory samples in the area were tested for the presence of lead, not for any rubber-related constituents.[9] In light of these facts, in my opinion there is no basis to assign an allocation share to the United States for this unit. Attachment 3 includes a 20% adjustment to the Base Case if the Court determines that more than a 0% or minimal share should be allocated to the United States for this unit.

B. Baytown -- Former Ordnance Works Cleanup

The costs categorized by Exxon as "Former Ordnance Works Cleanup" appear to be for investigation of a groundwater contamination plume located in the vicinity of the former Baytown Ordnance Works (BOW). The BOW, which was considerably expanded after Exxon acquired it in 1946, is now a part of the Baytown Chemical Plant, which borders the Baytown Refinery. This plume area is commonly referred to in Exxon's technical documents as the Tank Farm 3000 area. For purposes of the present case, Exxon has categorized these costs as cleanup of the former Ordnance Works, and presented an analysis based on 100% of the contamination being associated with the Ordnance Works. However, as noted in my January 30, 2017 Supplemental Report, it is apparent that the plume actually straddles the border between the Baytown Chemical Plant and the Baytown Refinery. And as I also noted, according to an analysis conducted by Exxon to address how to share the cleanup costs for addressing this plume between the Chemical Plant and the Refinery, Exxon estimated that about 42% of the contaminants in the groundwater plume are from the operations in the area of the Ordnance Works (and therefore should be allocated to the Chemical Plant) and 58% of the contaminants in the plume are from operations in the Refinery.[10] Thus, a proper allocation for these costs suggests that:

- 58% of the allocation should be based on an allocation percentage calculated for the refinery groundwater plumes.

- 42% of the allocation, should be based on an allocation percentage calculated for the Chemical Plant, including the original Ordnance Works and its subsequent expansion, and the addition of new chemical plant units.

No post-1946 production information for the Ordnance Works plant or the expanded Chemical Plant was produced by Exxon so there is no basis to compare the operations during WW II when the government owned the plant, with the operations and generation of contaminants beginning in early 1946, when Exxon owned and operated it. However, as I noted Exxon's own documents indicate that the plant was expanded and many new units were added after Exxon purchased it in 1946.[11] Exxon's own contractor's analysis of hydrocarbons in the

[9] BAYTECH-00179486 – 179489, 00179500

[10] BC Groundwater Tank farm 3000 Remediation Update, BTRF/BTCP Allocation Update, 6/20/95. BAYC-00051445; BAYTECH-00045798.

[11] Humble 1946 Annual Report. MIS-00026521.

groundwater plume,[12] which was required to be submitted to Texas regulatory authorities as a condition of a consent decree with the state, indicated that contaminants in the groundwater plume include mixed xylenes from the Paraxylene Extraction Unit (PXU), (which, according to Exxon's Annual Report, was installed in 1953,[13] and the kerosene feed and LPU product from the Linear Paraffins Unit (LPU), installed in 1964, both of which came into operation after any U.S. involvement with this facility. PCB contamination in the groundwater was traced to the LPU. In addition, the analysis also indicates that certain alkylates found in the groundwater are from the 1970s. Constituents associated with the LPU and PXU were allocated to the Chemical Plant in Exxon's 1995 internal allocation.

Exxon updated its Tank Farm 3000 analysis in a November 1994 Memorandum report which included additional sampling from 1993 and 1994 along with the depth of free-phase hydrocarbons in each sample. [14] The memorandum reported the same conclusions with respect to sources of hydrocarbon constituents. I had not taken this data into account in my original analysis. I have now had an opportunity to examine the additional data, and I have updated my January 30, 2017 analysis of Exxon's characterization of samples of chemical constituents comprising the Tank 3000 Plume and Exxon's measurement of the depth of free-phase hydrocarbons in the sampling locations using this additional data. Based on this data and Exxon's characterization, approximately 29% of constituents in the plume are from releases associated with the LPU and PXU.[15] Exxon's characterization analysis did not attribute any of the hydrocarbon constituents in the plume to releases from operations of the BOW during 1942-1946.

For allocation purposes, based on Exxon's own analysis, 58% of the costs claimed for this plume should be allocated on the same Base Case percentage as the refinery allocation for other groundwater units, and approximately 13% of the costs (42% minus 29% to account for the 29% of constituents from the LPU and PXU) should be allocated based on the Chemical Plant/BOW allocation in my updated spreadsheet (Attachment 3).

C. Baytown -- SWMU Investigation

Exxon has claimed costs for investigation of a number of Solid Waste Management Units (SWMUs). The list of SWMUs included units that were in operation during the period of government involvement and units that were placed into operation after the period of government involvement. In my August 10, 2012 report, I estimated that that approximately 50% of the costs of the SWMU investigation were for SWMUs that were not in operation during

[12] 2/2/1993 AES Phase III Subsurface Investigation of Tank Farm 3000 and adjacent areas. Exxon Chemical Americas, Baytown Chemical Plant, BAYTECH-00027105

[13] Humble 1953 Annual Report. MIS-00008371.

[14] November 28, 1994 Exxon Research and Engineering Company Interoffice Note: Characterization of Hydrocarbon Samples Recovered from Underground Wells, BAYTECH-00045802, 807, 808.

[15] See Attachment 6. The analysis sums up the constituents in each sample and adjusts them to take into account the different depths of each sample to calculate the total percentage by weight of each constituent identified in Exxon's analysis.

the period of government involvement. I had not included a spreadsheet showing this analysis in my original report. The spreadsheet showing this analysis is included as Attachment 7. In my original allocation, I generated an allocation for each individual unit based. In my updated spreadsheets, I have incorporated a crude throughput-based production methodology to derive a Base Case allocation and I have applied a 50% relevant fact adjustment against the Base Case allocation percentage calculated in Attachment 3. I have not made any changes to my approach for this specific unit, but the calculations are expressed differently in my updated spreadsheets.

D. Baytown -- Canals

My August 10, 2012 report, I indicated that I thought it was appropriate to apply a higher (50%) waste reduction multiplier for the canals unit than for other units. This multiplier was included in the calculation of something equivalent to a Base Case share. In my current spreadsheet, I have accounted for this in the "Relevant Facts" adjustment to the Base Case. By my calculation the 50% additional waste reduction multiplier had the effect of increasing the allocation percentage for the canals by approximately 35%-40% over the Base Case allocation percentage. In order to account for this in Attachment 3 includes a 140% relevant fact adjustment against the Base Case allocation percentage for the canals unit. Similar to the SWMU Investigation allocation, above, I have not made any changes to my approach for this specific unit, but the calculations are expressed differently in my updated spreadsheets.

E. Baytown -- South Landfarm

In my previous reports, I estimated that approximately 2% of waste in the South Landfarm was generated from closure of Separators 10 (a.k.a. Spill Basin) 3M North and 3M South. This estimate was based on Exxon's closure plans for these units. I have since reviewed additional documents and revised my estimate of the percentage of waste in the South Landfarm, from these units, increasing it to 18%. Discussion of this change follows.

A plan was submitted for the closure of the South Landfarm in 1988.[16] The plan indicated that the maximum waste inventory estimated to be in the unit at the time of closure was 425,000 cubic yards. Of this amount, the plan indicated that:

- 165,000 cubic yards was from pre-1985 operations (this would have been prior to the time that sludge and soil from the closures of separators 3M North, 3M South, and 3A and Spill Basin 1 (formerly Separator 10) would have been placed in the South Landfarm.

- 135,000 cubic yards was since 1985 – this would have included sludge and soil from closures of separators 3M North, 3M South, 3A, and Spill Basin 1 (formerly Separator 10).

[16] November 7, 1988 Revised Closure Plan for South Landfarm, BAYTECH-00010217.

- 125,000 cubic yards was estimated to be placed there in the future ("active waste") consisting of normal operations (15,000), retention basin sludge (50,000) and inert catalyst pond solids (60,000), all from operations with no federal involvement.[17]

Only the volume of soil from closure of Separators 3M North and South and 10 would be relevant to the years of U.S. involvement, since sludge was routinely removed from these units and any sludge present at closure would not be from the years of U.S. Involvement.[18]

Exxon has not provided a complete set of invoices that would account for the total volume of contaminated soils removed from Separator 3M North and South and Spill Basin 1 (formerly Separator 10), the only units relevant to U.S. involvement. Based on the available invoices, reported volumes of soil are 49,074 cubic yards for Separator 3M North at 90% project completion,[19] and 8,729cubic yards at 100% completion for Separator 3M South[20]. Exxon estimated that 60,000 cubic yards of soil would need to be removed from Separator 3M North.[21] No volumes of soil from Spill Basin 1 have been reported, although the original estimate in the closure plan was 6,000 cubic yards.[22] Total reported or estimated volume of soil is then 74,726cubic yards. The total reported volume of sludge from the invoices for Separators 3M North and South and Spill Basin 1 is 61,657 cubic yards.

The combined total of sludge and soil (136,383 cy) is higher than the estimated 90,000-99,000 cubic yards of sludge and soil suggested by the 1988 South Landfarm closure plan, but it is relatively close. The total does not include a total of sludge and soil for Separator 3A, a unit that is not relevant to the U.S. share.

Based on the above estimates, the percentage of soils in the South Landfarm from cleanup of Separators 3M North and South and Spill Basin 1 is approximately 18% (74,726/425,000=17.6%). This percentage is applied in Attachment 3 as a relevant fact adjustment multiplier to the U.S. Base Case allocation percentage. Thus, for example, if the

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[17] BAYTECH-00010217.

[18] See February 17, 1984 Partial Closure Plan for Separator 3M, BAYTECH 00013407, page 3-1 ("*Since sludges are routinely removed from the separator every two years, closure would not begin until the removal of contaminated soils occurs"*); January 20, 1985 Closure Plans for Spill Basin, Separator 3M (North), Separator 3A and South Landfarm, BAYTECH-00095556, page 4-12 *("It should be noted that pump-out of settled sludges from the separators is part of the unit's normal operating procedure. As such, closure will not normally actually commence in a regulatory sense until removal of contaminated soils begins"*).

[19] BAYTECH-00126137. Exxon had estimated that 60,000 cy of soil would need to be removed from 3M North. The last invoice produced by Exxon shows that, at 90% complete, 49,074 cy soil had been removed. I have used the 60,000 cy figure in my calculations.

[20] BAYTECH-00125872.

[21] (*September 9, 1985 CATH 13395X Clean and Close Separator 3M, BAYTECH-00125079-80*).

[22] January 20, 1985 Closure Plans for Spill Basin, Separator 3M (North), Separator 3A and South Landfarm, BAYTECH-00095556, page 3-23, 4-31.

Court decides that the Base Case refinery allocation (applied to the separator units) is 10%, the allocation for the South Landfarm should be 18% x 10%, or 1.8%.

F. Baton Rouge – Old Silt Pond and Rice Paddy Landfarm

As I have previously stated, the costs claimed by Exxon for the Old Silt Pond and Rice Paddy Landfarm are costs for closure of these units for their use during the 1970s and 1980s as major waste impoundments at the refinery. And even if it is assumed that waste from prior years may have been present within the footprint of these units, the evidence shows that there was no use of these units as active waste impoundments until after WW II ended. In light of these facts, in my opinion there is no basis to assign an allocation share to the United States for these units. Attachment 5 includes a 10% relevant fact adjustment multiplier against the Base Case Baton Rouge allocation percentage if the Court determines that more than a 0% or minimal share should be allocated to the United States for this unit.

G. Baton Rouge -- Groundwater Monitoring/Remediation Site Assessments Soil Remediation

Exxon has provided insufficient detail on the breakdown of these costs. These three cost components are designated as "Solid Waste Management Investigation/Remediation and Other Areas of Contamination" in Exxon expert reports. Other than simply applying a Base Case percentage for these costs, Exxon has not indicated why the United States should be allocated any share. Attachment 5 includes a 50% relevant fact adjustment multiplier against the Base Case allocation percentage for these costs if the Court determines that more than a 0% or minimal share should be allocated to the United States for this unit.

H. Baton Rouge -- Miscellaneous/No Description

Exxon has provided no detail on what Miscellaneous/No Description costs encompass. Other than simply applying a Base Case percentage for these costs, Exxon has not indicated why the United States should be allocated any share. Attachment 5 includes a 20% relevant fact adjustment multiplier against the Base Case allocation percentage for these costs if the Court determines that more than a 0% or minimal share should be allocated to the United States for this unit.

IV. CONCLUSION

While Attachments 3, for Baytown, and 5, for Baton Rouge contain inputs that I believe are appropriate, I reserve the right to revise these inputs based on testimony and other evidence presented at trial

Matthew Low

Attachment 1 -- Documents Relied Upon for February 2, 2020 Supplemental Report

1. Revised RCRA Facility Investigation Work Plan for Twenty-Two Solid Waste Management Units, June 15, 1998. ERM. BAYTECH-00003336, at 3472. The timeframe during which butyl rubber was disposed is not indicated.

2. July 2011 Remedial Action Completion Report, BAYTECH-00179486 – 179489, 00179500

3. November1998 Arthur D. Little study BAYTECH-00045469.

4. September 2003 Addendum 5 to Phase I/II RCRA Facility Investigation Report for SWMU 60 BAYTECH-00007489.

5. BC Groundwater Tank farm 3000 Remediation Update, BTRF/BTCP Allocation Update, 6/20/95. BAYC-00051445; BAYTECH-00045798.

6. Humble 1946 Annual Report. MIS-00026521.

7. 2/2/1993 AES Phase III Subsurface Investigation of Tank Farm 3000 and adjacent areas. Exxon Chemical Americas, Baytown Chemical Plant, BAYTECH-00027105

8. Humble 1953 Annual Report. MIS-00008371.

9. November 28, 1994 Exxon Research and Engineering Company Interoffice Note: Characterization of Hydrocarbon Samples Recovered from Underground Wells, BAYTECH-00045802, 807, 808.

10. November 7, 1988 Revised Closure Plan for South Landfarm, BAYTECH-00010217.

11. February 17, 1984 Partial Closure Plan for Separator 3M, BAYTECH 00013407

12. January 20, 1985 Closure Plans for Spill Basin, Separator 3M (North), Separator 3A and South Landfarm, BAYTECH-00095556,

13. Invoice BAYTECH-00126137

14. Invoice BAYTECH-00125872.

15. September 9, 1985 CATH 13395X Clean and Close Separator 3M, BAYTECH-00125079-80).

16. January 20, 1985 Closure Plans for Spill Basin, Separator 3M (North), Separator 3A and South Landfarm, BAYTECH-00095556,

BAYTOWN -- KEY INPUT ADJUSTMENTS ("SWITCHES") FOR ALLOCATION

STEP 1 -- Assigning Response Cost Percentages to Years

Waste Adjustment Multipliers

White Average Assumed Waste Reductions for Periods Noted	Period	White Average Mutipliers Against Crude for Periods Noted	
61.92%	1950-1954	38.08%	Control Shift X Brings White Waste Adjustment Multipliers into Worksheets
89.32%	1955-1960	10.68%	
97.00%	1960-1969	3.00%	
97.00%	1970-1979	3.00%	
97.45%	1980-1985	2.55%	

[redacted]

Include Post-1970 crude throughput in BOW Allocation	NO	NO (White) -- Years after 1970 not Included; YES (Low) -- Years 1971-1985 Included

Step 1 Results for Refinery Allocation with Multiplier Inputs

Allocation Period	% of Costs Assigned
1928-1941a	41.31%
1941b-1945a	17.22%
1945b-1955	32.07%
1956-1985	9.40%
	100.00%

Step 1 Results for Ordnance Works (Tank Farm 3000 Plume) Allocation with Mutiplier Inputs

Allocation Period	% of Costs Assigned
1928-1941a	0.00%
1941b-1945a	29.33%
1945b-1955	61.40%
1956-1985	9.27%
	100.00%

STEP 2 -- Determining Portion of Costs (Percentages) Associated with Periods of Federal Involvement Attributable to War Products

Refinery Allocation	
% Crude attributed to 100 Octane AVGAS WW II	100%
% Crude attributed to Other War Products WW II	0%
% Crude attributed to AVGAS/War Products Korean War	100%

Ordnance Works Allocation (Tank Farm 3000)	
% Crude attributed to Ordnance Works WWII	100%
% Crude attributed to Ordnance Works Korean War	100%

Average % Crude attributed to Plancors 1942-1943	0%
Average % Crude attributed to Plancors 1944-1955	10%
Average % Crude attributed to BOW 1941b	7.5%
Average % Crude attributed to BOW 1942-1945a	25%

White Delay Factor	**IN**	IN (100% of White Delay Factor; OUT (0% or % indicated below)
Percent of Delay Factor IN if 100% White Delay Factor is OUT	0.00%	Insert % of White Delay Factor Incorporated

Step 3 -- Equitable Division of Wartime Related Costs

Refinery Allocation	
U.S. Share of 100 Octane AVGAS 1942-1945a (Contract)	100%
U.S. Share of AVGAS 1941b (Pre-Contract) 1945b (Post-Contract	40%
U.S. Share of Other War Products 1941b-1945a	40%
U.S. Share of AVGAS Korean War	40%
U.S. Share of Plancor and BOW Contribution 1942-1945a	100%
U.S. Share of Plancor and BOW contribution 1941b, 1945a-1955	60%

Ordnance Works Allocation (Tank Farm 3000)	
U.S. Share of Ordance Works 1942-1945a	100%
U.S. Share of Ordnance Works 1945b	60%
U.S. Share of Ordnance Works Korean War	40%

Step 3A -- Equitable Cost Adjustments to take into account facts relevant to certain cost units (No Adjustments in White Allocation)

Cost Unit	% Multiplier	
South Landfarm	100%	Only approximately 18% of waste in landfarm is from Separator 3M and 10 cleanup and possibly related to the period of U.S. involvement. Calculation arguably should multiply 18% times the allocation % for the Separator 3M and 10 Cleanup
Canals	100%	Low's expert report builds in additional 50% waste reduction for canals -- adds approximately 40% to allocation percentage for this cost unit.
SWMU Investigation	100%	Approximately 50% of the investigation costs are for units that were not in operation during the period of U.S. involvement.
Mitchell Point -- SWMU 60	100%	Most of the activities generating waste in this unit apparer to post-date WWII, including landfarming from 1957-73 (accounting for 8,000 cu. yds. of oily sludges)
Tankfarm 3000 (Contribution from Ordnance Works and Post-1946 Expanded Facility)	100%	100%
Tankfarm 3000 (Contribution from Refinery)	0%	Exxon internal allocation is 58% from Refinery and 42% from Chemical Plant. Based on plume characterization analysis by Exxon's contractor, at least 29% of the plume contaminants originated from Chemical Plant units placed into operation after Exxon took over ownership and operation. Thus, only 71% could possibly from other Chemical Plant units, including, possibly, original Ordnance Works

RESULTS SUMMARY	Refinery Units	BOW	TOTAL	White Refinery	White BOW
Base United States Allocation % Before Relevant Facts Cost Adjustments	29.67%	36.51%		29.67%	36.54%
Base United States Share Before Relevant Facts Cost Adjustment	$15,786,172	$2,400,233	$18,186,404		
United States Allocation % After Relevant Facts Cost Adjustments	*29.67%*	*36.51%*			
United States Share After Relevant Facts Cost Adjustments	*$15,786,172*	*$2,400,233*	*$18,186,404*		

SUMMARY OF COSTS AND RELEVANT FACT ADJUSTMENTS

Existing Units	YEARS	BASE ALLOCATION %	ALLOCATION ADJUSTMENTS AND MULTIPLIERS FOR Relevant Facts			ADJUSTED U.S. ALLOCATION %	EXXON CLAIMED COSTS (INCLUDING INTEREST)	U.S. SHARE ($) BASED ON EXXON CLAIMED COSTS
Separator 3M and Separator 10 Cleanup	**1928-1985**	**29.67%**			100.00%	**29.67%**	$5,598,758	$1,661,321
South Landfarm Cleanup	**1928-1985**	**29.67%**	Only Approximately 18% of waste in landfarm is from Separator 3M and 10 cleanup and possibly related to the period of U.S. involvement. **Calculation arguably should multiply 18% times the allocation % for the Separator 3M and 10 Cleanup**		**100.00%**	**29.67%**	$2,026,013	$601,179
General Canals and Separators Cleanup	**1928-1995**	**29.67%**			100.00%	**29.67%**	$13,073,564	$3,879,321
Investigation of SWMUs	**1931-1959**	**29.67%**	Approximately 50% of the investigation costs are for units that were not in operation during the period of U.S. involvement.		100.00%	**29.67%**	$6,034,486	$1,790,614
Refinery Groundwater	**1928-1995**	**29.67%**			100.00%	29.67%	$8,742,390	$2,594,131
Main Office Building (MOB) SWMU 62	**1921-1970**	**29.67%**			100.00%	29.67%	$128,579	$38,153
Facility Operations Area (FOA)	**1928-2011**	**29.67%**			100.00%	29.67%	$8,668,306	$2,572,148
Mitchell Point – SWMU 60	**1928-1992**	**29.67%**	Most of the activities generating waste in this unit apparer to post-date WWII, including landfarming from 1957-73 (accounting for 8,000 cu. yds. of oily sludges)		**100.00%**	29.67%	$6,470,671	$1,920,044
Velasco Street Ditch --	**1928-1993**	**29.67%**			100.00%	29.67%	$2,299,077	$682,206
PRP Investigation	**1928-2011**	**29.67%**			100.00%	29.67%	$158,577	$47,055
							$53,200,421	**$15,786,172**
								29.67%

	YEARS	BASE ALLOCATION %		Exxon Internal Allocation Multiplier	Multiplier to Adjust for Contribution from Post-US Involvement Units	Adjusted Allocation	EXXON CLAIMED COSTS (INCLUDING INTEREST)	U.S. SHARE ($) BASED ON EXXON CLAIMED COSTS
Former Ordnance Works Groundwater Plume (Contribution from Ordnance Works and Post-1946 Expanded Facility)	**1941-1995**	**36.51%**	Exxon internal allocation is 58% from Refinery and 42% from Chemical Plant. Based on plume characterization analysis by Exxon's contractor, at least 29% of the plume contaminants originated from Chemical Plant units placed into operation after Exxon took over ownership and operation. Thus, only 71% could possibly from other Chemical Plant units, including, possibly, original Ordnance Works	100%	100%	36.51%		
Former Ordnance Works Groundwater Plume (Contribution from Refinery)	**1928-1985**	29.67%		0%	N/A	0.00%		
					Total	**36.51%**	$6,574,910	$2,400,232.52

$59,775,331

SUMMARY AND MULTIPLIERS WORKSHEET

REFINERY ALLOCATION -- "INTER-CLASS" (Degree of Involvement) MULTIPLIERS AND % CRUDE THROUGHPUT COUNTED FOR WW II AND KOREAN WAR AVGAS AND OTHER WAR PRODUCTS

	Refinery Weight	% of Barrel of Crude Allocated--AVGAS	U.S. "Inter-class" Share Avgas	% of Barrel of Crude Allocated -- Other War Products	U.S. "Inter-class" Share-- Other War Products	Plancors Weight	U.S. "Inter-class" Share -- Plancors	*BOW Weight*		U.S. "Interclass" Share -- BOW
1941b	92.50%	100.00%	40.00%	0.00%	40.00%	0.00%	100.00%	*7.50%*		60%
1942-1943	75.00%	100.00%	100.00%	0.00%	40.00%	0.00%	100.00%	*25.00%*		100%
1944-1945a	65.00%	100.00%	100.00%	0.00%	40.00%	10.00%	100.00%	*25.00%*		100%
1945b-1950a	90.00%	0.00%	0.00%	0.00%	0.00%	10.00%	60.00%	*0.00%*		
1950b-1953a	90.00%	100.00%	40.00%	0.00%	0.00%	10.00%	60.00%			
1953b-1954	90.00%	0.00%	0.00%	0.00%	0.00%	10.00%	60.00%			
1955	95.00%	0.00%	0.00%	0.00%	0.00%	5.00%	60.00%			U.S. Allocation %
										29.67%

BOW ALLOCATION

	BOW WEIGHT FOR BOW ALLOCATION	Plancor Weight BOW	U.S. "Inter-class" Share AVGAS -- BOW	
1941b	100.00%	0%	60%	
1942-1943	100.00%	0%	100%	
1944-1945a	100.00%	0%	100%	Excludes 1945b
1945b-1946	100.00%	0%	60%	BOW -- 1945b only
1950b-1953a	100.00%	0%	40%	
	100.00%	0%	0%	
Delay Component %	100.00%	0%	0%	
10.42%			**36.51%**	

Waste Reduction Multipliers

	Production Efficiency	Pre-Separator	RCRA		White			*White Combined*		Low			Variable		
1950	71%	100%	100%		71%	100%	100%	71.00%		70%	100%	100%	50%	100%	100%
1951	41%	100%	100%		41%	100%	100%	41.00%		70%	100%	100%	50%	100%	100%
1952	39%	70%	100%		39%	70%	100%	27.30%		70%	100%	100%	50%	100%	100%
1953	37%	70%	100%		37%	70%	100%	25.90%		70%	100%	100%	50%	100%	100%
1954	36%	70%	100%		36%	70%	100%	25.20%	38.08%	70%	100%	100%	50%	100%	100%
1955	34%	40%	100%		34%	40%	100%	13.60%		55%	100%	100%	50%	100%	100%
1956	32%	40%	100%		32%	40%	100%	12.80%		55%	100%	100%	50%	100%	100%
1957	30%	40%	100%		30%	40%	100%	12.00%		55%	100%	100%	50%	100%	100%
1958	30%	40%	100%		30%	40%	100%	12.00%		55%	100%	100%	50%	100%	100%
1959	30%	10%	100%		30%	10%	100%	3.00%	10.68%	55%	100%	100%	50%	100%	100%
1960	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1961	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1962	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1963	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1964	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1965	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1966	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1967	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1968	30%	10%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1969	30%	10%	100%		30%	10%	100%	3.00%	3.00%	50%	100%	100%	40%	100%	100%
1970	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1971	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1972	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1973	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1974	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1975	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1976	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1977	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1978	30%	10%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1979	30%	10%	100%		30%	10%	100%	3.00%	3.00%	40%	100%	100%	30%	100%	100%
1980	30%	10%	85%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1981	30%	10%	85%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1982	30%	10%	85%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1983	30%	10%	85%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1984	30%	10%	85%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1985	30%	10%	85%		30%	10%	85%	2.55%	2.55%	35%	100%	100%	25%	100%	100%

DELAY COMPONENT MULTIPLIERS

(For Easy Substitution to Zero Out Delay Factor)

1945b	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*		*1954*	
5%	15%	25%	35%	40%	40%	40%	40%	40%		40%	IN
1955	1956	1957	1958	1959							
35%	25%	15%	5%	0%							

(For Easy Substitution to Zero Out Delay Factor)

1945b	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*		*1954*	
0.00%	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*		*0.00%*	0%
1955	*1956*	*1957*	*1958*	*1959*							
0.00%	*0.00%*	*0.00%*	*0.00%*	*0.00%*							

Calculation of Average U.S. Degree of Involvement for Use in Delay Component

	Yearly %	% of War Years	Degree of Involvement	Calculation of Average WWII Degree of Involvement
1942	4.14%	27.61%	100.00%	27.61%
1943	3.91%	26.12%	100.00%	26.12%
1944	4.25%	28.36%	100.00%	28.36%
1945a	2.68%	17.91%	100.00%	17.91%
	14.99%	100.00%		100.00%

WHITE -- "INTRA-CLASS" ALLOCATION LOW -- "RESPONSE COST IMPACT"

1	2	3	4	5	6	7	8	9	10	11	12
Year	Throughput to be Split	Throughput	Waste Efficiency	Pre-Separator	Evap Ponds	RCRA	Combined Adjustment Factor	Adjusted Throughput	Yearly % ("Intra-Class")	Period %	Period
1921		3,650,000	100%	100%	100%	100%	100.00%	3,650,000	0.22%		
1922		7,300,000	100%	100%	100%	100%	100.00%	7,300,000	0.45%		
1923		10,950,000	100%	100%	100%	100%	100.00%	10,950,000	0.67%		
1924		14,600,000	100%	100%	100%	100%	100.00%	14,600,000	0.89%		
1925		18,250,000	100%	100%	100%	100%	100.00%	18,250,000	1.12%		
1926		22,812,000	100%	100%	100%	100%	100.00%	22,812,000	1.40%		
1927		27,375,000	100%	100%	100%	100%	100.00%	27,375,000	1.68%		
1928		31,937,500	100%	100%	100%	100%	100.00%	31,937,500	1.96%		
1929		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	2.24%		
1930		45,625,000	100%	100%	100%	100%	100.00%	45,625,000	2.80%		
1931		45,625,000	100%	100%	100%	100%	100.00%	45,625,000	2.80%		
1932		45,625,000	100%	100%	100%	100%	100.00%	45,625,000	2.80%		
1933		29,200,000	100%	100%	100%	100%	100.00%	29,200,000	1.79%		
1934		32,850,000	100%	100%	100%	100%	100.00%	32,850,000	2.01%		
1935		41,975,000	100%	100%	100%	100%	100.00%	41,975,000	2.57%		
1936		41,975,000	100%	100%	100%	100%	100.00%	41,975,000	2.57%		
1937		43,800,000	100%	100%	100%	100%	100.00%	43,800,000	2.68%		
1938		54,750,000	100%	100%	100%	100%	100.00%	54,750,000	3.36%		
1939		50,005,000	100%	100%	100%	100%	100.00%	50,005,000	3.06%		
1940		51,100,000	100%	100%	100%	100%	100.00%	51,100,000	3.13%		
1941a	54,750,000	18,250,000	100%	100%	100%	100%	100.00%	18,250,000	1.12%	**41.31%**	1921-1941a
1941b	54,750,000	36,500,000	100%	100%	100%	100%	100.00%	36,500,000	2.24%		
1942		67,525,000	100%	100%	100%	100%	100.00%	67,525,000	4.14%		
1943		63,875,000	100%	100%	100%	100%	100.00%	63,875,000	3.91%		
1944		69,350,000	100%	100%	100%	100%	100.00%	69,350,000	4.25%		
1945a	65,700,000	43,800,000	100%	100%	100%	100%	100.00%	43,800,000	2.68%	17.22%	1941b-1945a
1945b	65,700,000	21,900,000	100%	100%	100%	100%	100.00%	21,900,000	1.34%		
1945b		DELAY COMPONENT									
1946		65,700,000	100%	100%	100%	100%	100.00%	65,700,000	4.03%		
		DELAY COMPONENT									
1947		69,350,000	100%	100%	100%	100%	100.00%	69,350,000	4.25%		
		DELAY COMPONENT									
1948		73,000,000	100%	100%	100%	100%	100.00%	73,000,000	4.47%		
		DELAY COMPONENT									
1949		82,125,000	100%	100%	100%	100%	100.00%	82,125,000	5.03%		
		DELAY COMPONENT									
1950a	94,900,000	47,450,000	71%	100%	100%	100%	71.00%	33,689,500	2.06%	21.19%	1945b-1950a
		DELAY COMPONENT									
1950b	94,900,000	47,450,000	71%	100%	100%	100%	71.00%	33,689,500	2.06%		
		DELAY COMPONENT									
1951		114,975,000	41%	100%	100%	100%	41.00%	47,139,750	2.89%		
		DELAY COMPONENT									
1952		104,390,000	39%	70%	100%	100%	27.30%	28,498,470	1.75%		
		DELAY COMPONENT									
1953a	106,580,000	62,171,667	37%	70%	100%	100%	25.90%	16,102,462	0.99%	7.69%	1950b-1953a
		DELAY COMPONENT									
1953b	106,580,000	44,408,333	37%	70%	100%	100%	25.90%	11,501,758	0.70%		
		DELAY COMPONENT									
1954		101,105,000	36%	70%	100%	100%	25.20%	25,478,460	1.56%		
		DELAY COMPONENT									
1955		111,325,000	34%	40%	100%	100%	13.60%	15,140,200	0.93%	3.19%	1953b-1955
		DELAY COMPONENT								32.07%	
1956		114,281,500	32%	40%	100%	100%	12.80%	14,628,032	0.90%		
		DELAY COMPONENT									
1957		102,930,000	30%	40%	100%	100%	12.00%	12,351,600	0.76%		
		DELAY COMPONENT									
1958		103,276,750	30%	40%	100%	100%	12.00%	12,393,210	0.76%		
		DELAY COMPONENT									
1959		103,623,500	30%	10%	100%	100%	3.00%	3,108,705	0.19%		
1960		106,689,500	30%	10%	100%	100%	3.00%	3,200,685	0.20%		
1961		106,689,500	30%	10%	100%	100%	3.00%	3,200,685	0.20%		
1962		110,230,000	30%	10%	100%	100%	3.00%	3,306,900	0.20%		
1963		110,230,000	30%	10%	100%	100%	3.00%	3,306,900	0.20%		
1964		110,230,000	30%	10%	100%	100%	3.00%	3,306,900	0.20%		
1965		100,375,000	30%	10%	100%	100%	3.00%	3,011,250	0.18%		
1966		98,002,500	30%	10%	100%	100%	3.00%	2,940,075	0.18%		
1967		98,185,000	30%	10%	100%	100%	3.00%	2,945,550	0.18%		
1968		124,100,000	30%	10%	100%	100%	3.00%	3,723,000	0.23%		
1969		125,925,000	30%	10%	100%	100%	3.00%	3,777,750	0.23%		
1970		125,925,000	30%	10%	100%	100%	3.00%	3,777,750	0.23%		
1971		125,925,000	30%	10%	100%	100%	3.00%	3,777,750	0.23%		
1972		125,925,000	30%	10%	100%	100%	3.00%	3,777,750	0.23%		
1973		127,750,000	30%	10%	100%	100%	3.00%	3,832,500	0.23%		
1974		146,000,000	30%	10%	100%	100%	3.00%	4,380,000	0.27%		
1975		146,000,000	30%	10%	100%	100%	3.00%	4,380,000	0.27%		
1976		142,350,000	30%	10%	100%	100%	3.00%	4,270,500	0.26%		
1977		142,350,000	30%	10%	100%	100%	3.00%	4,270,500	0.26%		
1978		233,600,000	30%	10%	100%	100%	3.00%	7,008,000	0.43%		
1979		233,600,000	30%	10%	100%	100%	3.00%	7,008,000	0.43%		
1980		233,600,000	30%	10%	100%	85%	2.55%	5,956,800	0.37%		
1981		233,600,000	30%	10%	100%	85%	2.55%	5,956,800	0.37%		
1982		233,600,000	30%	10%	100%	85%	2.55%	5,956,800	0.37%		
1983		180,310,333	30%	10%	100%	85%	2.55%	4,597,913	0.28%		
1984		180,310,000	30%	10%	100%	85%	2.55%	4,597,905	0.28%		
1985		180,310,000	30%	10%	100%	85%	2.55%	4,597,905	0.28%	**9.40%**	1956-1985
		5,229,373,583						1,631,867,715	100%	132%	
									1974-1988	3.86%	
									1957-1973	4.41%	
									1959-1985	6.98%	

No U.S. Liabilty

WHITE -- U.S. "INTER-CLASS" ALLOCATION, "FEDERAL" PERIOD
LOW "DEGREE OF INOLVEMENT," "U.S. INVOLVEMENT" PERIOD

13	14	15	16	17	18	19	20	21	22	23	24
Refinery Weight	% of Barrel of Crude Allocated-- AVGAS	U.S. "Inter-class" Share	% of Barrel of Crude Allocated -- Other War Products	U.S. "Inter-class" Share	Plancors Weight	U.S. "Inter-class" Share	U.S. Degree of Involvement for Year	U.S. Allocation %	BOW Weight	U.S. "Inter-class" Share	U.S. Degree of Involvement for Year	U.S. Allocation %	Delay Component Split	U.S. Allocation with Delay Component	US % of Cost for year (for delay calculations)
92.5%	100%	40%	0%	40%	0%	100%	37%		7.50%	60%	41.50%			0.93%	41.50%
75%	100%	100%	0%	40%	0%	100%	75%		25.00%	100%	100.00%			4.14%	100.00%
75%	100%	100%	0%	40%	0%	100%	75%		25.00%	100%	100.00%			3.91%	100.00%
65%	100%	100%	0%	40%	10%	100%	75%		25.00%	100%	100.00%			4.25%	100.00%
65%	100%	100%	0%	40%	10%	100%	75%		25.00%	100%	100.00%			2.68%	*15.91%*	100.00%
90%	0%	0%	0%	0%	10%	60%		0.08%					95%	0.08%	
							100.00%						5%	0.07%	
90%	0%	0%	0%	0%	10%	60%		0.24%					85%	0.21%	
							100.00%						15%	0.60%	
90%	0%	0%	0%	0%	10%	60%		0.25%					75%	0.19%	
							100.00%						25%	1.06%	
90%	0%	0%	0%	0%	10%	60%		0.27%					65%	0.17%	
							100.00%						35%	1.57%	
90%	0%	0%	0%	0%	10%	60%		0.30%					60%	0.18%	
							100.00%						40%	2.01%	
90%	0%	0%	0%	0%	10%	60%		0.12%					60%	0.07%	
							100.00%						40%	0.83%	
90%	100%	40%	0%	0%	10%	60%		0.87%					60%	0.52%	
							100.00%						40%	0.83%	
90%	100%	40%	0%	0%	10%	60%		1.21%					60%	0.73%	
							100.00%						40%	1.16%	
90%	100%	40%	0%	0%	10%	60%		0.73%					60%	0.44%	
							100.00%						40%	0.70%	
90%	100%	40%	0%	0%	10%	60%		0.41%					60%	0.25%	
							100.00%						40%	0.39%	
90%	0%	0%	0%	0%	10%	60%		0.04%					60%	0.03%	
							100.00%						40%	0.28%	
90%	0%	0%	0%	0%	10%	60%		0.09%					60%	0.06%	
							100.00%						40%	0.62%	
95%	0%	0%	0%	0%	5%	60%		0.03%					65%	0.02%	
							100.00%						35%	0.32%	
								0.00%					75%	0.00%	
							100.00%						25%	0.22%	
								0.00%					85%	0.00%	
							100.00%						15%	0.11%	
								0.00%					95%	0.00%	
							100.00%						5%	0.04%	**29.67%**
															10.42%

NO U.S. INVOLVEMENT -- DELAY COMPONENT ONLY

No U.S. Liabilty

1	2	3	4	5	6	7	8	9	10	11	12
		WHITE -- "INTRA-CLASS" ALLOCATION				LOW -- "RESPONSE COST IMPACT"					
Year	Throughput to be Split	Throughput	Waste Efficiency	Pre-Separator	Evap Ponds	RCRA	Combined Adjustment Factor	Adjusted Throughput	Yearly % ("Intra-Class")	Period %	Period
1921		0	100%	100%	100%	100%	100.00%	0	0.00%		
1922		0	100%	100%	100%	100%	100.00%	0	0.00%		
1923		0	100%	100%	100%	100%	100.00%	0	0.00%		
1924		0	100%	100%	100%	100%	100.00%	0	0.00%		
1925		0	100%	100%	100%	100%	100.00%	0	0.00%		
1926		0	100%	100%	100%	100%	100.00%	0	0.00%		
1927		0	100%	100%	100%	100%	100.00%	0	0.00%		
1928		0	100%	100%	100%	100%	100.00%	0	0.00%		
1929		0	100%	100%	100%	100%	100.00%	0	0.00%		
1930		0	100%	100%	100%	100%	100.00%	0	0.00%		
1931		0	100%	100%	100%	100%	100.00%	0	0.00%		
1932		0	100%	100%	100%	100%	100.00%	0	0.00%		
1933		0	100%	100%	100%	100%	100.00%	0	0.00%		
1934		0	100%	100%	100%	100%	100.00%	0	0.00%		
1935		0	100%	100%	100%	100%	100.00%	0	0.00%		
1936		0	100%	100%	100%	100%	100.00%	0	0.00%		
1937		0	100%	100%	100%	100%	100.00%	0	0.00%		
1938		0	100%	100%	100%	100%	100.00%	0	0.00%		
1939		0	100%	100%	100%	100%	100.00%	0	0.00%		
1940		0	100%	100%	100%	100%	100.00%	0	0.00%		
1941a		0	100%	100%	100%	100%	100.00%	0	0.00%	**0.00%**	1921-1941a

22	23	24
WHITE -- U.S. "INTER-CLASS" ALLOCATION, "FEDERAL" PERIOD LOW "DEGREE OF INOLVEMENT," "U.S. INVOLVEMENT" PERIOD		
BOW Weight	U.S. "Interclass Share"	U.S. Degree of Involvement for Year	U.S. Allocation Percentage	Delay Component Split	U.S. Allocation with Delay Component	
100.00%	60%	60%			0.39%	
100.00%	100%	100%			7.92%	
100.00%	100%	100%			7.49%	
100.00%	100%	100%			8.14%	
100.00%	100%	100%			5.14%	
100.00%	60%	60%		100%	1.54%	*30.62%*
		0%		0%	0.00%	
		0.00%		100%	0.00%	
		0%		0%	0.00%	
		0.00%		100%	0.00%	
		0%		0%	0.00%	
		0.00%		100%	0.00%	
		0%		0%	0.00%	
		0.00%		100%	0.00%	
		0%		0%	0.00%	
		0.00%		100%	0.00%	
		0%		0%	0.00%	
		0.00%		100%	0.00%	
		0%		0%	0.00%	
100%	40.00%	40%		100%	1.58%	
		0%		0%	0.00%	
100%	40.00%	40%		100%	2.21%	
		0%		0%	0.00%	
100%	40.00%	40%		100%	1.34%	
		0%		0%	0.00%	
100%	40.00%	40%		100%	0.76%	
		0%		0%	0.00%	
		0%		100%	0.00%	
		0%		0%	0.00%	
		0%		100%	0.00%	
		0%		0%	0.00%	
		0%		100%	0.00%	
		0%		0%	0.00%	
		0%		100%	0.00%	
		0%		0%	0.00%	
		0%		100%	0.00%	
		0%		0%	0.00%	**36.51%**

White Actual 36.54%

No U.S. Liabilty

WASTE ADJUSTMENT FACTORS DERIVED FROM TIME OF USE ALLOCATION

BAYTOWN

Year	Crude Throughput Capacity	% Increase from 1945 Crude Throughput	Response Cost Impact Multipliers for Each Barrel of Crude Oil Throughput		
			Low	Suggested	White
1945	65,700,000		100.00%		100.00%
1950	94,900,000	144%	69.23%	70.00%	71.00%
1955	111,325,000	169%	59.02%	60.00%	13.60%
1960	106,689,500	162%	61.58%	60.00%	3.00%
1965	100,375,000	153%	65.45%	65.00%	3.00%
1970	125,925,000	192%	52.17%	50.00%	3.00%
1975	146,000,000	222%	45.00%	45.00%	3.00%
1980	233,600,000	356%	**28.13%**	**25.00%**	**2.55%**
			54.37%		14.16%

BATON ROUGE

Year	Crude Throughput Capacity	% Increase from 1945 Crude Throughput	Response Cost Impact Multipliers of Each Barrel of crude Oil Throughput		
			Low	Suggested	White
1945	47,450,000		100.00%		100.00%
1950	89,425,000	188%	73.47%	70.00%	39.00%
1955	119,209,000	251%	55.11%	55.00%	39.00%
1960	133,225,000	281%	49.32%	50.00%	21.45%
1965	132,130,000	278%	49.72%	50.00%	9.75%
1970	158,410,000	334%	41.47%	40.00%	6.63%
1975	162,425,000	342%	40.45%	40.00%	0.78%
1980	182,500,000	385%	**36.00%**	**35.00%**	**0.66%**
			49.36%		13.05%

BAYTOWN -- KEY INPUT ADJUSTMENTS ("SWITCHES") FOR ALLOCATION

STEP 1 -- Assigning Response Cost Percentages to Years

Waste Adjustment Multipliers

[redacted]

Low Average Assumed Waste Reductions for Periods Noted	Period	Low Multipliers Against Crude for Periods Noted	
30.00%	1950-1954	70%	Control Shift Y Brings Low Waste Adjustment Multipliers into Worksheets
45.00%	1955-1959	55%	
50.00%	1960-1969	50%	
60.00%	1970-1979	40%	
65.00%	1980-1985	35%	

[redacted]

Include Post-1970 crude throughput in BOW Allocation	YES	NO (White) -- Years after 1970 not Included; YES (Low) -- Years 1971-1985 Included

Step 1 Results for Refinery Allocation with Multiplier Inputs	
Allocation Period	% of Costs Assigned
1928-1941a	19.11%
1941b-1945a	7.97%
1945b-1955	20.94%
1956-1985	51.97%
	100.00%

Step 1 Results for Ordnance Works (Tank Farm 3000 Plume) Allocation with Mutiplier Inputs	
Allocation Period	% of Costs Assigned
1928-1941a	0.00%
1941b-1945a	8.86%
1945b-1955	26.18%
1956-1985	64.96%
	100.00%

STEP 2 -- Determining Portion of Costs (Percentages) Associated with Periods of Federal Involvement Attributable to War Products

Refinery Allocation	
% Crude attributed to 100 Octane AVGAS WW II	7%
% Crude attributed to Other War Products WW II	22%
% Crude attributed to AVGAS/War Products Korean War	1%

Ordnance Works Allocation (Tank Farm 3000)	
% Crude attributed to Ordnance Works WWII	100%
% Crude attributed to Ordnance Works Korean War	100%

Average % Crude attributed to Plancors 1942-1943	7%	
Average % Crude attributed to Plancors 1944-1955	7%	
Average % Crude attributed to BOW 1941b	0.0%	Low inputs -- included in Plancor Contribution
Average % Crude attributed to BOW 1942-1945a	0%	

White Delay Factor	OUT	IN (100% of White Delay Factor; OUT (0% or % indicated below)
Percent of Delay Factor IN if 100% White Delay Factor is OUT	0.00%	Insert % of White Delay Factor Incorporated

Step 3 -- Equitable Division of Wartime Related Costs

Refinery Allocation	
U.S. Share of 100 Octane AVGAS 1942-1945a (Contract)	100%
U.S. Share of AVGAS 1941b (Pre-Contract) 1945b (Post-Contract	40%
U.S. Share of Other War Products 1941b-1945a	40%
U.S. Share of AVGAS Korean War	0%
U.S. Share of Plancor and BOW Contribution 1942-1945a	62.5%
U.S. Share of Plancor and BOW contribution 1941b, 1945a-1955	62.5%

Ordnance Works Allocation (Tank Farm 3000)	
U.S. Share of Ordance Works 1942-1945a	62.5%
U.S. Share of Ordnance Works 1945b	62.5%
U.S. Share of Ordnance Works Korean War	0.0%

Step 3A -- Equitable Cost Adjustments to take into account facts relevant to certain cost units (No Adjustments in White Allocation)

Cost Unit	% Multiplier	
South Landfarm	18%	Only approximately 18% of waste in landfarm is from Separator 3M and 10 cleanup and possibly related to the period of U.S. involvement. Calculation arguably should multiply 18% times the allocation % for the Separator 3M and 10 Cleanup
Canals	140%	Low's expert report builds in additional 50% waste reduction for canals -- adds approximately 40% to allocation percentage for this cost unit.
SWMU Investigation	50%	Approximately 50% of the investigation costs are for units that were not in operation during the period of U.S. involvement.
Mitchell Point -- SWMU 60	20%	Most of the activities generating waste in this unit apparer to post-date WWII, including landfarming from 1957-73 (accounting for 8,000 cu. yds. of oily sludges)
Tankfarm 3000 (Contribution from Ordnance Works and Post-1946 Expanded Facility)	42%	13%
Tankfarm 3000 (Contribution from Refinery)	58%	Exxon internal allocation is 58% from Refinery and 42% from Chemical Plant. Based on plume characterization analysis by Exxon's contractor, at least 29% of the plume contaminants originated from Chemical Plant units placed into operation after Exxon took over ownership and operation. Thus, only 71% could possibly from other Chemical Plant units, including, possibly, original Ordnance Works

RESULTS SUMMARY	Refinery Units	BOW	TOTAL	White Refinery	White BOW
Base United States Allocation % Before Relevant Facts Cost Adjustments	2.38%	6.02%		29.67%	36.54%
Base United States Share Before Relevant Facts Cost Adjustment	$1,267,328	$396,018	$1,663,345		
United States Allocation % After Relevant Facts Cost Adjustments	*2.18%*	*1.71%*			
United States Share After Relevant Facts Cost Adjustments	*$1,157,136*	*$112,466*	*$1,269,601*		

SUMMARY OF COSTS AND RELEVANT FACT ADJUSTMENTS

Existing Units	YEARS	BASE ALLOCATION %	ALLOCATION ADJUSTMENTS AND MULTIPLIERS FOR Relevant Facts		ADJUSTED U.S. ALLOCATION %	EXXON CLAIMED COSTS (INCLUDING INTEREST)	U.S. SHARE ($) BASED ON EXXON CLAIMED COSTS
Separator 3M and Separator 10 Cleanup	**1928-1985**	**2.38%**		100.00%	**2.38%**	$5,598,758	$133,372
South Landfarm Cleanup	**1928-1985**	**2.38%**	Only Approximately 18% of waste in landfarm is from Separator 3M and 10 cleanup and possibly related to the period of U.S. involvement. **Calculation arguably should multiply 18% times the allocation % for the Separator 3M and 10 Cleanup**	**18.00%**	**0.43%**	$2,026,013	$8,687
General Canals and Separators Cleanup	**1928-1995**	**2.38%**		140.00%	**3.34%**	$13,073,564	$436,009
Investigation of SWMUs	**1931-1959**	**2.38%**	Approximately 50% of the investigation costs are for units that were not in operation during the period of U.S. involvement.	50.00%	**1.19%**	$6,034,486	$71,876
Refinery Groundwater	**1928-1995**	**2.38%**		100.00%	2.38%	$8,742,390	$208,259
Main Office Building (MOB) SWMU 62	**1921-1970**	**2.38%**		100.00%	2.38%	$128,579	$3,063
Facility Operations Area (FOA)	**1928-2011**	**2.38%**		100.00%	2.38%	$8,668,306	$206,494
Mitchell Point – SWMU 60	**1928-1992**	**2.38%**	Most of the activities generating waste in this unit apparer to post-date WWII, including landfarming from 1957-73 (accounting for 8,000 cu. yds. of oily sludges)	**20.00%**	0.48%	$6,470,671	$30,829
Velasco Street Ditch --	**1928-1993**	**2.38%**		100.00%	2.38%	$2,299,077	$54,768
PRP Investigation	**1928-2011**	**2.38%**		100.00%	2.38%	$158,577	$3,778
						$53,200,421	**$1,157,136**
							2.18%

		BASE ALLOCATION %		Exxon Internal Allocation Multiplier	Multiplier to Adjust for Contribution from Post-US Involvement Units	Adjusted Allocation	EXXON CLAIMED COSTS (INCLUDING INTEREST)	U.S. SHARE ($) BASED ON EXXON CLAIMED COSTS
Former Ordnance Works Groundwater Plume (Contribution from Ordnance Works and Post-1946 Expanded Facility)	**1941-1995**	**6.02%**	Exxon internal allocation is 58% from Refinery and 42% from Chemical Plant. Based on plume characterization analysis by Exxon's contractor, at least 29% of the plume contaminants originated from Chemical Plant units placed into operation after Exxon took over ownership and operation. Thus, only 71% could possibly from other Chemical Plant units, including, possibly, original Ordnance Works	42%	13%	0.33%		
Former Ordnance Works Groundwater Plume (Contribution from Refinery)	**1928-1985**	2.38%		58%	N/A	1.38%		
					Total	**1.71%**	$6,574,910	$112,465.61

$59,775,331

SUMMARY AND MULTIPLIERS WORKSHEET

REFINERY ALLOCATION -- "INTER-CLASS" (Degree of Involvement) MULTIPLIERS AND % CRUDE THROUGHPUT COUNTED FOR WW II AND KOREAN WAR AVGAS AND OTHER WAR PRODUCTS

	Refinery Weight	% of Barrel of Crude Allocated--AVGAS	U.S. "Inter-class" Share Avgas	% of Barrel of Crude Allocated -- Other War Products	U.S. "Inter-class" Share-- Other War Products	Plancors Weight	U.S. "Inter-class" Share -- Plancors	*BOW Weight*		U.S. "Interclass" Share -- BOW
1941b	100.00%	7.00%	40.00%	22.00%	40.00%	0.00%	62.50%	*0.00%*		63%
1942-1943	93.00%	7.00%	100.00%	22.00%	40.00%	7.00%	62.50%	*0.00%*		63%
1944-1945a	93.00%	7.00%	100.00%	22.00%	40.00%	7.00%	62.50%	*0.00%*		63%
1945b-1950a	93.00%	0.00%	0.00%	0.00%	0.00%	7.00%	62.50%	*0.00%*		
1950b-1953a	93.00%	1.00%	0.00%	0.00%	0.00%	7.00%	62.50%			
1953b-1954	93.00%	0.00%	0.00%	0.00%	0.00%	7.00%	62.50%			
1955	95.00%	0.00%	0.00%	0.00%	0.00%	5.00%	62.50%			U.S. Allocation %
										2.38%

BOW ALLOCATION

	BOW WEIGHT FOR BOW ALLOCATION	Plancor Weight BOW	U.S. "Inter-class" Share AVGAS -- BOW	
1941b	100.00%	0%	63%	
1942-1943	100.00%	0%	63%	
1944-1945a	100.00%	0%	63%	Excludes 1945b
1945b-1946	100.00%	0%	63%	BOW -- 1945b only
1950b-1953a	100.00%	0%	0%	
	100.00%	0%	0%	
Delay Component %	100.00%	0%	0%	
0.00%			**6.02%**	

Waste Reduction Multipliers

	Production Efficiency	Pre-Separator	RCRA		White			*White Combined*		Low			Variable		
1950	70%	100%	100%		71%	100%	100%	71.00%		70%	100%	100%	50%	100%	100%
1951	70%	100%	100%		41%	100%	100%	41.00%		70%	100%	100%	50%	100%	100%
1952	70%	100%	100%		39%	70%	100%	27.30%		70%	100%	100%	50%	100%	100%
1953	70%	100%	100%		37%	70%	100%	25.90%		70%	100%	100%	50%	100%	100%
1954	70%	100%	100%		36%	70%	100%	25.20%	38.08%	70%	100%	100%	50%	100%	100%
1955	55%	100%	100%		34%	40%	100%	13.60%		55%	100%	100%	50%	100%	100%
1956	55%	100%	100%		32%	40%	100%	12.80%		55%	100%	100%	50%	100%	100%
1957	55%	100%	100%		30%	40%	100%	12.00%		55%	100%	100%	50%	100%	100%
1958	55%	100%	100%		30%	40%	100%	12.00%		55%	100%	100%	50%	100%	100%
1959	55%	100%	100%		30%	10%	100%	3.00%	10.68%	55%	100%	100%	50%	100%	100%
1960	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1961	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1962	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1963	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1964	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1965	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1966	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1967	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1968	50%	100%	100%		30%	10%	100%	3.00%		50%	100%	100%	40%	100%	100%
1969	50%	100%	100%		30%	10%	100%	3.00%	3.00%	50%	100%	100%	40%	100%	100%
1970	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1971	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1972	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1973	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1974	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1975	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1976	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1977	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1978	40%	100%	100%		30%	10%	100%	3.00%		40%	100%	100%	30%	100%	100%
1979	40%	100%	100%		30%	10%	100%	3.00%	3.00%	40%	100%	100%	30%	100%	100%
1980	35%	100%	100%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1981	35%	100%	100%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1982	35%	100%	100%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1983	35%	100%	100%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1984	35%	100%	100%		30%	10%	85%	2.55%		35%	100%	100%	25%	100%	100%
1985	35%	100%	100%		30%	10%	85%	2.55%	2.55%	35%	100%	100%	25%	100%	100%

DELAY COMPONENT MULTIPLIERS

(For Easy Substitution to Zero Out Delay Factor)

1945b	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*		*1954*	
5%	15%	25%	35%	40%	40%	40%	40%	40%		40%	OUT
1955	1956	1957	1958	1959							
35%	25%	15%	5%	0%							

(For Easy Substitution to Zero Out Delay Factor)

1945b	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*		*1954*	
0.00%	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*		*0.00%*	0%
1955	*1956*	*1957*	*1958*	*1959*							
0.00%	*0.00%*	*0.00%*	*0.00%*	*0.00%*							

Calculation of Average U.S. Degree of Involvement for Use in Delay Component

	Yearly %	% of War Years	Degree of Involvement	Calculation of Average WWII Degree of Involvement
1942	1.91%	27.61%	19.07%	5.27%
1943	1.81%	26.12%	19.07%	4.98%
1944	1.97%	28.36%	19.07%	5.41%
1945a	1.24%	17.91%	19.07%	3.42%
	6.93%	100.00%		19.07%

1	2	3	4	5	6	7	8	9	10	11	12
		WHITE -- "INTRA-CLASS" ALLOCATION				LOW -- "RESPONSE COST IMPACT"					
Year	Throughput to be Split	Throughput	Waste Efficiency	Pre-Separator	Evap Ponds	RCRA	Combined Adjustment Factor	Adjusted Throughput	Yearly % ("Intra-Class")	Period %	Period
1921		3,650,000	100%	100%	100%	100%	100.00%	3,650,000	0.10%		
1922		7,300,000	100%	100%	100%	100%	100.00%	7,300,000	0.21%		
1923		10,950,000	100%	100%	100%	100%	100.00%	10,950,000	0.31%		
1924		14,600,000	100%	100%	100%	100%	100.00%	14,600,000	0.41%		
1925		18,250,000	100%	100%	100%	100%	100.00%	18,250,000	0.52%		
1926		22,812,000	100%	100%	100%	100%	100.00%	22,812,000	0.65%		
1927		27,375,000	100%	100%	100%	100%	100.00%	27,375,000	0.78%		
1928		31,937,500	100%	100%	100%	100%	100.00%	31,937,500	0.91%		
1929		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.03%		
1930		45,625,000	100%	100%	100%	100%	100.00%	45,625,000	1.29%		
1931		45,625,000	100%	100%	100%	100%	100.00%	45,625,000	1.29%		
1932		45,625,000	100%	100%	100%	100%	100.00%	45,625,000	1.29%		
1933		29,200,000	100%	100%	100%	100%	100.00%	29,200,000	0.83%		
1934		32,850,000	100%	100%	100%	100%	100.00%	32,850,000	0.93%		
1935		41,975,000	100%	100%	100%	100%	100.00%	41,975,000	1.19%		
1936		41,975,000	100%	100%	100%	100%	100.00%	41,975,000	1.19%		
1937		43,800,000	100%	100%	100%	100%	100.00%	43,800,000	1.24%		
1938		54,750,000	100%	100%	100%	100%	100.00%	54,750,000	1.55%		
1939		50,005,000	100%	100%	100%	100%	100.00%	50,005,000	1.42%		
1940		51,100,000	100%	100%	100%	100%	100.00%	51,100,000	1.45%		
1941a	54,750,000	18,250,000	100%	100%	100%	100%	100.00%	18,250,000	0.52%	**19.11%**	1921-1941a
1941b	54,750,000	36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.03%		
1942		67,525,000	100%	100%	100%	100%	100.00%	67,525,000	1.91%		
1943		63,875,000	100%	100%	100%	100%	100.00%	63,875,000	1.81%		
1944		69,350,000	100%	100%	100%	100%	100.00%	69,350,000	1.97%		
1945a	65,700,000	43,800,000	100%	100%	100%	100%	100.00%	43,800,000	1.24%	7.97%	1941b-1945a
1945b	65,700,000	21,900,000	100%	100%	100%	100%	100.00%	21,900,000	0.62%		
1945b		DELAY COMPONENT									
1946		65,700,000	100%	100%	100%	100%	100.00%	65,700,000	1.86%		
		DELAY COMPONENT									
1947		69,350,000	100%	100%	100%	100%	100.00%	69,350,000	1.97%		
		DELAY COMPONENT									
1948		73,000,000	100%	100%	100%	100%	100.00%	73,000,000	2.07%		
		DELAY COMPONENT									
1949		82,125,000	100%	100%	100%	100%	100.00%	82,125,000	2.33%		
		DELAY COMPONENT									
1950a	94,900,000	47,450,000	70%	100%	100%	100%	70.00%	33,215,000	0.94%	9.79%	1945b-1950a
		DELAY COMPONENT									
1950b	94,900,000	47,450,000	70%	100%	100%	100%	70.00%	33,215,000	0.94%		
		DELAY COMPONENT									
1951		114,975,000	70%	100%	100%	100%	70.00%	80,482,500	2.28%		
		DELAY COMPONENT									
1952		104,390,000	70%	100%	100%	100%	70.00%	73,073,000	2.07%		
		DELAY COMPONENT									
1953a	106,580,000	62,171,667	70%	100%	100%	100%	70.00%	43,520,167	1.23%	6.53%	1950b-1953a
		DELAY COMPONENT									
1953b	106,580,000	44,408,333	70%	100%	100%	100%	70.00%	31,085,833	0.88%		
		DELAY COMPONENT									
1954		101,105,000	70%	100%	100%	100%	70.00%	70,773,500	2.01%		
		DELAY COMPONENT									
1955		111,325,000	55%	100%	100%	100%	55.00%	61,228,750	1.74%	4.62%	1953b-1955
		DELAY COMPONENT								20.94%	
1956		114,281,500	55%	100%	100%	100%	55.00%	62,854,825	1.78%		
		DELAY COMPONENT									
1957		102,930,000	55%	100%	100%	100%	55.00%	56,611,500	1.61%		
		DELAY COMPONENT									
1958		103,276,750	55%	100%	100%	100%	55.00%	56,802,213	1.61%		
		DELAY COMPONENT									
1959		103,623,500	55%	100%	100%	100%	55.00%	56,992,925	1.62%		
1960		106,689,500	50%	100%	100%	100%	50.00%	53,344,750	1.51%		
1961		106,689,500	50%	100%	100%	100%	50.00%	53,344,750	1.51%		
1962		110,230,000	50%	100%	100%	100%	50.00%	55,115,000	1.56%		
1963		110,230,000	50%	100%	100%	100%	50.00%	55,115,000	1.56%		
1964		110,230,000	50%	100%	100%	100%	50.00%	55,115,000	1.56%		
1965		100,375,000	50%	100%	100%	100%	50.00%	50,187,500	1.42%		
1966		98,002,500	50%	100%	100%	100%	50.00%	49,001,250	1.39%		
1967		98,185,000	50%	100%	100%	100%	50.00%	49,092,500	1.39%		
1968		124,100,000	50%	100%	100%	100%	50.00%	62,050,000	1.76%		
1969		125,925,000	50%	100%	100%	100%	50.00%	62,962,500	1.79%		
1970		125,925,000	40%	100%	100%	100%	40.00%	50,370,000	1.43%		
1971		125,925,000	40%	100%	100%	100%	40.00%	50,370,000	1.43%		
1972		125,925,000	40%	100%	100%	100%	40.00%	50,370,000	1.43%		
1973		127,750,000	40%	100%	100%	100%	40.00%	51,100,000	1.45%		
1974		146,000,000	40%	100%	100%	100%	40.00%	58,400,000	1.66%		
1975		146,000,000	40%	100%	100%	100%	40.00%	58,400,000	1.66%		
1976		142,350,000	40%	100%	100%	100%	40.00%	56,940,000	1.61%		
1977		142,350,000	40%	100%	100%	100%	40.00%	56,940,000	1.61%		
1978		233,600,000	40%	100%	100%	100%	40.00%	93,440,000	2.65%		
1979		233,600,000	40%	100%	100%	100%	40.00%	93,440,000	2.65%		
1980		233,600,000	35%	100%	100%	100%	35.00%	81,760,000	2.32%		
1981		233,600,000	35%	100%	100%	100%	35.00%	81,760,000	2.32%		
1982		233,600,000	35%	100%	100%	100%	35.00%	81,760,000	2.32%		
1983		180,310,333	35%	100%	100%	100%	35.00%	63,108,617	1.79%		
1984		180,310,000	35%	100%	100%	100%	35.00%	63,108,500	1.79%		
1985		180,310,000	35%	100%	100%	100%	35.00%	63,108,500	1.79%	**51.97%**	1956-1985
		5,229,373,583						3,526,838,579	100%	121%	
									1974-1988	24.16%	
									1957-1973	24.58%	
									1959-1985	46.97%	

No U.S. Liabilty

WHITE -- U.S. "INTER-CLASS" ALLOCATION, "FEDERAL" PERIOD
LOW "DEGREE OF INOLVEMENT," "U.S. INVOLVEMENT" PERIOD

13	14	15	16	17	18	19	20	21	22	23	24
Refinery Weight	% of Barrel of Crude Allocated-- AVGAS	U.S. "Inter-class" Share	% of Barrel of Crude Allocated -- Other War Products	U.S. "Inter-class" Share	Plancors Weight	U.S. "Inter-class" Share	U.S. Degree of Involvement for Year	U.S. Allocation %	BOW Weight	U.S. "Inter-class" Share	U.S. Degree of Involvement for Year	U.S. Allocation %	Delay Component Split	U.S. Allocation with Delay Component	US % of Cost for year (for delay calculations)
100.0%	7%	40%	22%	40%	7%	63%	16%		0.00%	63%	15.98%			0.17%	15.98%
93%	7%	100%	22%	40%	7%	63%	19%		0.00%	63%	19.07%			0.37%	19.07%
93%	7%	100%	22%	40%	7%	63%	19%		0.00%	63%	19.07%			0.35%	19.07%
93%	7%	100%	22%	40%	7%	63%	19%		0.00%	63%	19.07%			0.37%	19.07%
93%	7%	100%	22%	40%	7%	63%	19%		0.00%	63%	19.07%			0.24%	*1.49%*	19.07%
93%	0%	0%	0%	0%	7%	63%		0.03%					100%	0.03%	
							19.07%						0%	0.00%	
93%	0%	0%	0%	0%	7%	63%		0.08%					100%	0.08%	
							19.07%						0%	0.00%	
93%	0%	0%	0%	0%	7%	63%		0.09%					100%	0.09%	
							19.07%						0%	0.00%	
93%	0%	0%	0%	0%	7%	63%		0.09%					100%	0.09%	
							19.07%						0%	0.00%	
93%	0%	0%	0%	0%	7%	63%		0.10%					100%	0.10%	
							19.07%						0%	0.00%	
93%	0%	0%	0%	0%	7%	63%		0.04%					100%	0.04%	
							19.07%						0%	0.00%	
93%	1%	0%	0%	0%	7%	63%		0.04%					100%	0.04%	
							19.07%						0%	0.00%	
93%	1%	0%	0%	0%	7%	63%		0.10%					100%	0.10%	
							19.07%						0%	0.00%	
93%	1%	0%	0%	0%	7%	63%		0.09%					100%	0.09%	
							19.07%						0%	0.00%	
93%	1%	0%	0%	0%	7%	63%		0.05%					100%	0.05%	
							19.07%						0%	0.00%	
93%	0%	0%	0%	0%	7%	63%		0.04%					100%	0.04%	
							19.07%						0%	0.00%	
93%	0%	0%	0%	0%	7%	63%		0.09%					100%	0.09%	
							19.07%						0%	0.00%	
95%	0%	0%	0%	0%	5%	63%		0.05%					100%	0.05%	
							19.07%						0%	0.00%	
								0.00%					100%	0.00%	
							19.07%						0%	0.00%	
								0.00%					100%	0.00%	
							19.07%						0%	0.00%	
								0.00%					100%	0.00%	
							19.07%						0%	0.00%	**2.38%**

NO U.S. INVOLVEMENT -- DELAY COMPONENT ONLY

0.00%

No U.S. Liabilty

WHITE -- "INTRA-CLASS" ALLOCATION LOW -- "RESPONSE COST IMPACT"

WHITE -- U.S. "INTER-CLASS" ALLOCATION, "FEDERAL" PERIOD LOW "DEGREE OF INOLVEMENT," "U.S. INVOLVEMENT" PERIOD

1	2	3	4	5	6	7	8	9	10	11	12					22	23	24
Year	Throughput to be Split	Throughput	Waste Efficiency	Pre-Separator	Evap Ponds	RCRA	Combined Adjustment Factor	Adjusted Throughput	Yearly % ("Intra-Class")	Period %	Period	BOW Weight	U.S. "Interclass Share"	U.S. Degree of Involvement for Year	U.S. Allocation Percentage	Delay Component Split	U.S. Allocation with Delay Component	
1921		0	100%	100%	100%	100%	100.00%	0	0.00%									
1922		0	100%	100%	100%	100%	100.00%	0	0.00%									
1923		0	100%	100%	100%	100%	100.00%	0	0.00%									
1924		0	100%	100%	100%	100%	100.00%	0	0.00%									
1925		0	100%	100%	100%	100%	100.00%	0	0.00%									
1926		0	100%	100%	100%	100%	100.00%	0	0.00%									
1927		0	100%	100%	100%	100%	100.00%	0	0.00%									
1928		0	100%	100%	100%	100%	100.00%	0	0.00%									
1929		0	100%	100%	100%	100%	100.00%	0	0.00%									
1930		0	100%	100%	100%	100%	100.00%	0	0.00%									
1931		0	100%	100%	100%	100%	100.00%	0	0.00%									
1932		0	100%	100%	100%	100%	100.00%	0	0.00%									
1933		0	100%	100%	100%	100%	100.00%	0	0.00%									
1934		0	100%	100%	100%	100%	100.00%	0	0.00%									
1935		0	100%	100%	100%	100%	100.00%	0	0.00%									
1936		0	100%	100%	100%	100%	100.00%	0	0.00%									
1937		0	100%	100%	100%	100%	100.00%	0	0.00%									
1938		0	100%	100%	100%	100%	100.00%	0	0.00%									
1939		0	100%	100%	100%	100%	100.00%	0	0.00%									
1940		0	100%	100%	100%	100%	100.00%	0	0.00%									
1941a		0	100%	100%	100%	100%	100.00%	0	0.00%	**0.00%**	1921-1941a							
1941b		5,475,000	100%	100%	100%	100%	100.00%	5,475,000	0.19%			100.00%	63%	63%			0.12%	
1942		67,525,000	100%	100%	100%	100%	100.00%	67,525,000	2.39%			100.00%	63%	63%			1.50%	
1943		63,875,000	100%	100%	100%	100%	100.00%	63,875,000	2.26%			100.00%	63%	63%			1.41%	
1944		69,350,000	100%	100%	100%	100%	100.00%	69,350,000	2.46%			100.00%	63%	63%			1.54%	
1945a	65,700,000	43,800,000	100%	100%	100%	100%	100.00%	43,800,000	1.55%	8.86%	1941b-1945a	100.00%	63%	63%			0.97%	
1945b	65,700,000	21,900,000	100%	100%	100%	100%	100.00%	21,900,000	0.78%			100.00%	63%	63%		100%	0.49%	6.02%
1945b	DELAY COMPONENT													0%		0%	0.00%	
1946		65,700,000	100%	100%	100%	100%	100.00%	65,700,000	2.33%					0.00%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1947		69,350,000	100%	100%	100%	100%	100.00%	69,350,000	2.46%					0.00%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1948		73,000,000	100%	100%	100%	100%	100.00%	73,000,000	2.59%					0.00%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1949		82,125,000	100%	100%	100%	100%	100.00%	82,125,000	2.91%					0.00%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1950a	94,900,000	47,450,000	70%	100%	100%	100%	70.00%	33,215,000	1.18%	12.24%	9			0.00%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1950b	94,900,000	47,450,000	70%	100%	100%	100%	70.00%	33,215,000	1.18%			100%	0.00%	0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1951		114,975,000	70%	100%	100%	100%	70.00%	80,482,500	2.85%			100%	0.00%	0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1952		104,390,000	70%	100%	100%	100%	70.00%	73,073,000	2.59%			100%	0.00%	0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1953a	106,580,000	62,171,667	70%	100%	100%	100%	70.00%	43,520,167	1.54%	8.16%	1950b-1953a	100%	0.00%	0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1953b	106,580,000	44,408,333	70%	100%	100%	100%	70.00%	31,085,833	1.10%					0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1954		101,105,000	70%	100%	100%	100%	70.00%	70,773,500	2.51%					0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1955		111,325,000	55%	100%	100%	100%	55.00%	61,228,750	2.17%	5.78%	1953b-1955			0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1956		114,281,500	55%	100%	100%	100%	55.00%	62,854,825	2.23%					0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1957		102,930,000	55%	100%	100%	100%	55.00%	56,611,500	2.01%					0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	
1958		103,276,750	55%	100%	100%	100%	55.00%	56,802,213	2.01%					0%		100%	0.00%	
	DELAY COMPONENT													0%		0%	0.00%	**6.02%**
1959		103,623,500	55%	100%	100%	100%	55.00%	56,992,925	2.02%									
1960		106,689,500	50%	100%	100%	100%	50.00%	53,344,750	1.89%									
1961		106,689,500	50%	100%	100%	100%	50.00%	53,344,750	1.89%									
1962		110,230,000	50%	100%	100%	100%	50.00%	55,115,000	1.95%									
1963		110,230,000	50%	100%	100%	100%	50.00%	55,115,000	1.95%									
1964		110,230,000	50%	100%	100%	100%	50.00%	55,115,000	1.95%									
1965		100,375,000	50%	100%	100%	100%	50.00%	50,187,500	1.78%									
1966		98,002,500	50%	100%	100%	100%	50.00%	49,001,250	1.74%									
1967		98,185,000	50%	100%	100%	100%	50.00%	49,092,500	1.74%									
1968		124,100,000	50%	100%	100%	100%	50.00%	62,050,000	2.20%									
1969		125,925,000	50%	100%	100%	100%	50.00%	62,962,500	2.23%									
1970		125,925,000	40%	100%	100%	100%	40.00%	50,370,000	1.79%	23.13%								
1971		125,925,000	40%	100%	100%	100%	40.00%	50,370,000	1.79%									
1972		125,925,000	40%	100%	100%	100%	40.00%	50,370,000	1.79%									
1973		127,750,000	40%	100%	100%	100%	40.00%	51,100,000	1.81%									
1974		146,000,000	40%	100%	100%	100%	40.00%	58,400,000	2.07%									
1975		146,000,000	40%	100%	100%	100%	40.00%	58,400,000	2.07%									
1976		142,350,000	40%	100%	100%	100%	40.00%	56,940,000	2.02%									
1977		142,350,000	40%	100%	100%	100%	40.00%	56,940,000	2.02%									
1978		233,600,000	40%	100%	100%	100%	40.00%	93,440,000	3.31%									
1979		233,600,000	40%	100%	100%	100%	40.00%	93,440,000	3.31%									
1980		233,600,000	35%	100%	100%	100%	35.00%	81,760,000	2.90%									
1981		233,600,000	35%	100%	100%	100%	35.00%	81,760,000	2.90%									
1982		233,600,000	35%	100%	100%	100%	35.00%	81,760,000	2.90%									
1983		180,310,333	35%	100%	100%	100%	35.00%	63,108,617	2.24%									
1984		180,310,000	35%	100%	100%	100%	35.00%	63,108,500	2.24%									
1985		180,310,000	35%	100%	100%	100%	35.00%	63,108,500	2.24%	**64.96%**	1956-1985							
		5,229,373,583						2,821,659,079	100%	123%								

White Actual
36.54%

No U.S. Liabilty

WASTE ADJUSTMENT FACTORS DERIVED FROM TIME OF USE ALLOCATION

BAYTOWN

Year	Crude Throughput Capacity	% Increase from 1945 Crude Throughput	Response Cost Impact Multipliers for Each Barrel of Crude Oil Throughput		
			Low	Suggested	White
1945	65,700,000		100.00%		100.00%
1950	94,900,000	144%	69.23%	70.00%	71.00%
1955	111,325,000	169%	59.02%	60.00%	13.60%
1960	106,689,500	162%	61.58%	60.00%	3.00%
1965	100,375,000	153%	65.45%	65.00%	3.00%
1970	125,925,000	192%	52.17%	50.00%	3.00%
1975	146,000,000	222%	45.00%	45.00%	3.00%
1980	233,600,000	356%	**28.13%**	**25.00%**	**2.55%**
			54.37%		14.16%

BATON ROUGE

Year	Crude Throughput Capacity	% Increase from 1945 Crude Throughput	Response Cost Impact Multipliers of Each Barrel of crude Oil Throughput		
			Low	Suggested	White
1945	47,450,000		100.00%		100.00%
1950	89,425,000	188%	73.47%	70.00%	39.00%
1955	119,209,000	251%	55.11%	55.00%	39.00%
1960	133,225,000	281%	49.32%	50.00%	21.45%
1965	132,130,000	278%	49.72%	50.00%	9.75%
1970	158,410,000	334%	41.47%	40.00%	6.63%
1975	162,425,000	342%	40.45%	40.00%	0.78%
1980	182,500,000	385%	**36.00%**	**35.00%**	**0.66%**
			49.36%		13.05%

BATON ROUGE -- KEY INPUT ADJUSTMENTS ("SWITCHES")

STEP 1 -- Assigning Response Cost Percentages to Years

Waste Adjustment Multipliers

White Average Assumed Waste Reductions for Periods Noted	Period	White Average Mutipliers Against Crude for Periods Noted	Control Shift W Brings White Waste Adjustment Multipliers into Worksheets
56.09%	1949-1959	43.91%	
88.65%	1960-1969	11.35%	
98.32%	1970-1979	1.68%	
99.34%	1980-1985	0.66%	

[redacted]

Step 1 Results for Refinery Allocation with Waste Multiplier Inputs	
Allocation Period	% of Costs Assigned
1921-1941a	40.80%
1941b-1945a	10.30%
1945b-1955	27.85%
1956-1985	21.06%
	100.00%
1972-1985	0.06%

STEP 2 -- Determining Portion of Costs (Percentages) Associated with Periods of Federal Involvement Attributable to War Products

% Crude attributed to AVGAS WW II	100%
% Crude attributed to Other War Products	0%
% Crude attributed to AVGAS/War Products Korean War	100%

Average % Crude attributed to Plancors 1942-1955	0%

White Delay Factor **IN** (100%) or **OUT** (% Below)	**IN**
Percent of Delay Factor IN if 100% White Delay Factor is OUT	**0.00%**

Step 3 -- Equitable Division of Wartime Related Costs

U.S. Share of AVGAS 1943-1945a (Contract)	100%
U.S. Share of AVGAS 1941b (Pre-Contract)	40%
U.S. Share of AVGAS Korean War	40%
U.S. Share of Other War Products 1941b-1945a	40%

U.S. Share of Plancor Contribution	60%

Step 3A -- Equitable Cost Adjustments to take into account facts relevant to certain cost units (No Adjustments in White Allocation)

Cost Unit	% Multiplier	Description of Relevant Facts
Old Silt Pond	100%	Remediation of these units was to address waste from use during 1970s and 1980s. Earlier use of these areas for silt or waste disposal did not commence until after August 1945
Old Silt Pond/Rice Paddy Landfarm	100%	
Rice Paddy Landfarm	100%	
Groundwater Monitoring/Remediation	100%	Exxon has provided insufficient detail on the breakdown of these costs. These three cost components designated as "Solid Waste Management Investigation/Remediation and Other Areas of Contamination" in Exxon expert reports.
Site Assessments	100%	
Soil Remediation	100%	
Miscellaneous/No Description	100%	Exxon has provided no detail on what "Miscellaneous/No Description" costs encompass.

RESULTS SUMMARY	Refinery Units	WHITE
Base United States Allocation % Before Relevant Fact Cost Adjustments	*19.39%*	*19.40%*
Base United States Share Before Relevant Fact Cost Adjustments	*$5,384,593*	
United States Allocation % After Relevant Fact Cost Adjustments	**11.99%**	
United States Share After Relevant Fact Cost Adjustments	**$3,330,212**	

SUMMARY OF COSTS AND RELEVANT FACT ADJUSTMENTS

	YEARS CONSIDERED	BASE ALLOCATION %	ALLOCATION ADJUSTMENTS AND MULTIPLIERS		ADJUSTED U.S. ALLOCATION %	EXXON CLAIMED COSTS (INCLUDING INTEREST)	U.S. SHARE ($) BASED ON EXXON CLAIMED COSTS
Old Silt Pond	1946-1959; 1974-1988	19.39%	Remediation of these units was to address waste from use during 1970s and 1980s. Earlier use of these areas for silt or waste disposal did not commence until after August 1945	100.00%	19.39%	$10,594,460	$2,054,381
Old Silt Pond/Rice Paddy Landfarm	**1946-1988**	19.39%		100.00%	19.39%	$3,506,336	$679,917
Rice Paddy Landfarm	**1946-1988**	19.39%		100.00%	19.39%	$4,908,324	$951,777
Shallow Fill Zone	**1941-1988**	19.39%		100.00%	19.39%	$5,380,522	$1,043,342
Groundwater Monitoring/Remediation	**Referred to as "Solid Waste Management Investigation/Remediation and Other Areas of Contamination" in Exxon Expert Reports -- Assume average period of 1922-1985**	19.39%	Exxon has provided insufficient detail on the breakdown of these costs. These three cost components designated as "Solid Waste Management Investigation/Remediation and Other Areas of Contamination" in Exxon expert reports.	100.00%	19.39%	$1,001,685	$194,238
Site Assessments		19.39%		100.00%	19.39%	$455,252	$88,278
Soil Remediation		19.39%		100.00%	19.39%	$820,590	$159,121
Miscellaneous/No Description	**Unknown**	19.39%	Exxon has provided no detail on what Miscellaneous/No Description costs encompass.	100.00%	10.00%	$942,644	$182,789
PRP Costs		19.39%		100.00%	19.39%	$158,577	$30,750
						$27,768,390	**$3,330,212**
							11.99%

SUMMARY AND MULTIPLIERS WORKSHEET

REFINERY ALLOCATION -- MR.WHITE'S "INTER-CLASS" MULTIPLIERS AND 100% CRUDE THROUGHPUT COUNTED FOR WW II AND KOREAN WAR

	Refinery Weight	% of Barrel of Crude Allocated--AVGAS	U.S. "Inter-class" Share Avgas	% of Barrel of Crude Allocated -- Other War Products	U.S. "Inter-class" Share--Other War Products	Plancors Weight	U.S. "Inter-class" Share -- Plancors	*U.S. "Inter-class" Share Avgas (Contract Claim)*		
1941b	100.00%	100.00%	40.00%	0.00%	40.00%	0.00%	60.00%			
1942-1943	100.00%	100.00%	100.00%	0.00%	40.00%	0.00%	60.00%	*100.00%*		
1944-1945a	100.00%	100.00%	100.00%	0.00%	40.00%	0.00%	60.00%	*100.00%*		
1945b-1950a	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	60.00%			
1950b-1953a	100.00%	100.00%	40.00%	0.00%	0.00%	0.00%	60.00%			
1953b-1955	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	60.00%		U.S. Allocation %	Delay Component
1955	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	60.00%		**19.39%**	**7.40%**

Waste Reduction Multipliers

	1940s Program	1960s Program	RCRA			WHITE			*White Combined*		VARIABLE			LOW		
1949	66%	100%	100%			66%	100%	100%	*66.00%*		50%	100%	100%	70%	100%	100%
1950	66%	100%	100%			66%	100%	100%	*66.00%*		50%	100%	100%	70%	100%	100%
1951	39%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1952	39%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1953	39%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1954	39%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1955	39%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1956	39%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1957	39%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1958	39%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1959	39%	100%	100%			39%	100%	100%	*39.00%*	43.91%	50%	100%	100%	70%	100%	100%
1960	39%	55%	100%			39%	55%	100%	*21.45%*		35%	100%	100%	50%	100%	100%
1961	39%	33%	100%			39%	33%	100%	*12.87%*		35%	100%	100%	50%	100%	100%
1962	39%	28%	100%			39%	28%	100%	*10.92%*		35%	100%	100%	50%	100%	100%
1963	39%	25%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1964	39%	25%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1965	39%	25%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1966	39%	25%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1967	39%	25%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1968	39%	25%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1969	39%	25%	100%			39%	25%	100%	*9.75%*	11.35%	35%	100%	100%	50%	100%	100%
1970	39%	17%	100%			39%	17%	100%	*6.63%*		25%	100%	100%	40%	100%	100%
1971	39%	10%	100%			39%	10%	100%	*3.90%*		25%	100%	100%	40%	100%	100%
1972	39%	2%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1973	39%	2%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1974	39%	2%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1975	39%	2%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1976	39%	2%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1977	39%	2%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1978	39%	2%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1979	39%	2%	100%			39%	2%	100%	*0.78%*	1.68%	25%	100%	100%	40%	100%	100%
1980	39%	2%	85%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1981	39%	2%	85%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1982	39%	2%	85%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1983	39%	2%	85%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1984	39%	2%	85%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1985	39%	2%	85%			39%	2%	85%	*0.66%*	0.66%	20%	100%	100%	35%	100%	100%

Delay Component Multipliers

1945b	1946	1947	1948	1949	1950	1951	1952	1953	1954	
41.67%	50%	50%	50%	42%	25%	8.33%	0%	0%	0%	IN
1955	1956	1957	1958	1959	1960					
0%	0%	0%	0%	0%	0%					

(For Easy Substitution to Zero Out Delay Factor)

1945b	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	
0%	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	**0%**
1955	*1956*	*1957*	*1958*	*1959*	*1960*					
0%	*0%*	*0%*	*0%*	*0%*	*0%*					

Calculation of Average U.S. Degree of Involvement for Use in Delay Component

	Yearly %	% of War Years	Degree of Involvement	Calculation of Average WWII Degree of Involvement
1942	2.36%	26.28%	100%	26.28%
1943	2.36%	26.28%	100%	26.28%
1944	2.56%	28.47%	100%	28.47%
1945a	1.71%	18.98%	100%	18.98%
	8.99%	100.00%		100.00%

Baton Rouge -- Framework with Inputs and Multipliers --

WHITE -- "INTRA-CLASS" ALLOCATION LOW -- "RESPONSE COST IMPACT"

WHITE -- U.S. "INTER-CLASS" ALLOCATION, "FEDERAL" PERIOD INVOLVEMENT" PERIOD LOW "DEGREE OF INOLVEMENT," "U.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19				20	21
Year	Throughput to be Split	Throughput	1940 Program	1950 Program	Not Used	RCRA	Combined	Adjusted Throughput				Refinery Weight	% of Barrel of Crude Allocated -- AVGAS	U.S. "Inter-class" Share	% of Barrel of Crude Allocated -- Other War Products	U.S. "Inter-class" Share	Plancons Weight	U.S. "Inter-class" Share	U.S. Degree of Involvement for Year	U.S. Allocation %	Delay Component Split	U.S. Allocation with Delay Component	
1910		657,000	100%	100%	100%	100%	100.00%	657,000	0.04%														
1911		2,445,500	100%	100%	100%	100%	100.00%	2,445,500	0.13%														
1912		4,234,000	100%	100%	100%	100%	100.00%	4,234,000	0.23%														
1913		7,227,000	100%	100%	100%	100%	100.00%	7,227,000	0.39%														
1914		6,533,500	100%	100%	100%	100%	100.00%	6,533,500	0.35%														
1915		6,935,000	100%	100%	100%	100%	100.00%	6,935,000	0.37%														
1916		8,614,000	100%	100%	100%	100%	100.00%	8,614,000	0.46%														
1917		13,103,500	100%	100%	100%	100%	100.00%	13,103,500	0.71%														
1918		15,987,000	100%	100%	100%	100%	100.00%	15,987,000	0.86%														
1919		16,133,000	100%	100%	100%	100%	100.00%	16,133,000	0.87%														
1920		15,804,500	100%	100%	100%	100%	100.00%	15,804,500	0.85%														
1921		19,053,000	100%	100%	100%	100%	100.00%	19,053,000	1.03%														
1922		22,447,500	100%	100%	100%	100%	100.00%	22,447,500	1.21%														
1923		23,250,500	100%	100%	100%	100%	100.00%	23,250,500	1.25%														
1924		28,652,500	100%	100%	100%	100%	100.00%	28,652,500	1.54%														
1925		33,762,500	100%	100%	100%	100%	100.00%	33,762,500	1.82%														
1926		34,638,500	100%	100%	100%	100%	100.00%	34,638,500	1.87%														
1927		36,025,500	100%	100%	100%	100%	100.00%	36,025,500	1.94%														
1928		29,200,000	100%	100%	100%	100%	100.00%	29,200,000	1.57%														
1929		29,200,000	100%	100%	100%	100%	100.00%	29,200,000	1.57%														
1930		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.97%														
1931		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.97%														
1932		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.97%														
1933		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.97%														
1934		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.97%														
1935		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.97%														
1936		32,850,000	100%	100%	100%	100%	100.00%	32,850,000	1.77%														
1937		32,850,000	100%	100%	100%	100%	100.00%	32,850,000	1.77%														
1938		32,850,000	100%	100%	100%	100%	100.00%	32,850,000	1.77%														
1939		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.97%														
1940		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	1.97%														
1941a	36,500,000	12,166,667	100%	100%	100%	100%	100.00%	12,166,667	0.66%	40.80%	1921-1941a												
1941b	36,500,000	24,333,333	100%	100%	100%	100%	100.00%	24,333,333	1.31%			100%	100%	40%	0%	40%	0%	60%	40%			0.52%	
1942		43,800,000	100%	100%	100%	100%	100.00%	43,800,000	2.36%			100%	100%	100%	0%	40%	0%	60%	100%			2.36%	
1943		43,800,000	100%	100%	100%	100%	100.00%	43,800,000	2.36%			100%	100%	100%	0%	40%	0%	60%	100%			2.36%	
1944		47,450,000	100%	100%	100%	100%	100.00%	47,450,000	2.56%			100%	100%	100%	0%	40%	0%	60%	100%			2.56%	
1945a	47,450,000	31,633,333	100%	100%	100%	100%	100.00%	31,633,333	1.71%	10.30%	1941b-1945a	100%	100%	100%	0%	40%	0%	60%	100%			1.71%	
1945b	47,450,000	15,816,667	100%	100%	100%	100%	100.00%	15,816,667	0.85%			100%	0%	0%	0%	0%	0%	60%		0.00%	58.33%	0.00%	
																			100.00%		41.67%	0.36%	
1946		47,450,000	100%	100%	100%	100%	100.00%	47,450,000	2.56%			100%	0%	0%	0%	0%	0%	60%		0.00%	50%	0.00%	
																			100.00%		50.00%	1.28%	
1947		65,700,000	100%	100%	100%	100%	100.00%	65,700,000	3.54%			100%	0%	0%	0%	0%	0%	60%		0.00%	50%	0.00%	
																			100.00%		50.00%	1.77%	
1948		65,700,000	100%	100%	100%	100%	100.00%	65,700,000	3.54%			100%	0%	0%	0%	0%	0%	60%		0.00%	50%	0.00%	
																			100.00%		50.00%	1.77%	
1949		85,775,000	66%	100%	100%	100%	66.00%	56,611,500	3.05%			100%	0%	0%	0%	0%	0%	60%		0.00%	58.33%	0.00%	
																			100.00%		41.67%	1.27%	
1950a	89,425,000	44,712,500	66%	100%	100%	100%	66.00%	29,510,250	1.59%	15.14%	1945b-1950a	100%	0%	0%	0%	40%	0%	60%		0.00%	75%	0.00%	
																			100.00%		25.00%	0.40%	
1950b	89,425,000	44,712,500	66%	100%	100%	100%	66.00%	29,510,250	1.59%			100%	100%	40%	0%	0%	0%	60%		0.64%	75%	0.48%	
																			100.00%		25.00%	0.40%	
1951		89,425,000	39%	100%	100%	100%	39.00%	34,875,750	1.88%			100%	100%	40%	0%	0%	0%	60%		0.75%	91.67%	0.69%	
																			100.00%		8.33%	0.16%	
1952		89,425,000	39%	100%	100%	100%	39.00%	34,875,750	1.88%			100%	100%	40%	0%	0%	0%	60%		0.75%	100%	0.75%	
																			100.00%		0.00%	0.00%	
1953a	113,880,000	66,430,000	39%	100%	100%	100%	39.00%	25,907,700	1.40%	6.75%	1950b-1953a	100%	100%	40%	0%	0%	0%	60%		0.56%	100%	0.56%	
																			100.00%		0.00%	0.00%	
1953b	113,880,000	47,450,000	39%	100%	100%	100%	39.00%	18,505,500	1.00%			100%	0%	0%	0%	0%	0%	60%		0.00%	100%	0.00%	
																			100.00%		0.00%	0.00%	
1954		116,800,000	39%	100%	100%	100%	39.00%	45,552,000	2.46%			100%	0%	0%	0%	0%	0%	60%		0.00%	100%	0.00%	
																			100.00%		0.00%	0.00%	
1955		119,209,000	39%	100%	100%	100%	39.00%	46,491,510	2.51%	5.96%	1953b-1955	100%	0%	0%	0%	0%	0%	60%		0.00%	100%	0.00%	19.39%
																			100.00%		0%	0.00%	
1956		125,195,000	39%	100%	100%	100%	39.00%	48,826,050	2.63%											0.00%	100%	0.00%	
																			100.00%		0%	0.00%	
1957		124,100,000	39%	100%	100%	100%	39.00%	48,399,000	2.61%											0.00%	100%	0.00%	
																			100.00%		0%	0.00%	
1958		129,575,000	39%	100%	100%	100%	39.00%	50,534,250	2.72%											0.00%	100%	0.00%	
																			100.00%		0%	0.00%	
1959		132,933,000	39%	100%	100%	100%	39.00%	51,843,870	2.80%											0.00%	100%	0.00%	
																			100.00%		0%	0.00%	
1960		133,225,000	39%	55%	100%	100%	21.45%	28,576,763	1.54%											0.00%	100%	0.00%	
																			100.00%		0%	0.00%	
1961		133,225,000	39%	33%	100%	100%	12.87%	17,146,058	0.92%														
1962		140,890,000	39%	28%	100%	100%	10.92%	15,385,188	0.83%														
1963		133,225,000	39%	25%	100%	100%	9.75%	12,989,438	0.70%														
1964		133,225,000	39%	25%	100%	100%	9.75%	12,989,438	0.70%														
1965		132,130,000	39%	25%	100%	100%	9.75%	12,882,675	0.69%														
1966		132,860,000	39%	25%	100%	100%	9.75%	12,953,850	0.70%														
1967		138,335,000	39%	25%	100%	100%	9.75%	13,487,663	0.73%														
1968		152,935,000	39%	25%	100%	100%	9.75%	14,911,163	0.80%														
1969		158,410,000	39%	25%	100%	100%	9.75%	15,444,975	0.83%														
1970		158,410,000	39%	17%	100%	100%	6.63%	10,502,583	0.57%														
1971		158,410,000	39%	10%	100%	100%	3.90%	6,177,990	0.33%														
1972		158,410,000	39%	2%	100%	100%	0.78%	1,235,598	0.07%														
1973		153,300,000	39%	2%	100%	100%	0.78%	1,195,740	0.06%														
1974		162,425,000	39%	2%	100%	100%	0.78%	1,266,915	0.07%														
1975		162,425,000	39%	2%	100%	100%	0.78%	1,266,915	0.07%														
1976		166,075,000	39%	2%	100%	100%	0.78%	1,295,385	0.07%														
1977		186,150,000	39%	2%	100%	100%	0.78%	1,451,970	0.08%														
1978		186,150,000	39%	2%	100%	100%	0.78%	1,451,970	0.08%														
1979		182,500,000	39%	2%	100%	100%	0.78%	1,423,500	0.08%														
1980		182,500,000	39%	2%	100%	85%	0.66%	1,209,975	0.07%														
1981		182,500,000	39%	2%	100%	85%	0.66%	1,209,975	0.07%														
1982		173,010,000	39%	2%	100%	85%	0.66%	1,147,056	0.06%														
1983		166,075,000	39%	2%	100%	85%	0.66%	1,101,077	0.06%														
1984		166,075,000	39%	2%	100%	85%	0.66%	1,101,077	0.06%														
1985		166,075,000	39%	2%	100%	85%	0.66%	1,101,077	0.06%	21.06%	1956-1985												
		6,456,996,000						1,854,653,392	100%	100%													

No U.S. Liabilty

NO U.S. INVOLVEMENT -- DELAY COMPONENT ONLY

No U.S. Liabilty

BAYTOWN

Year	Crude Throughput Capacity	% Increase from 1945 Crude Throughput	Response Cost Impact Multipliers for Each Barrel of Crude Oil Throughput		
			Low		**White**
1945	65,700,000		100.00%		100.00%
1950	94,900,000	144%	69.23%	70.00%	71.00%
1955	111,325,000	169%	59.02%	60.00%	13.60%
1960	106,689,500	162%	61.58%	60.00%	3.00%
1965	100,375,000	153%	65.45%	65.00%	3.00%
1970	125,925,000	192%	52.17%	50.00%	3.00%
1975	146,000,000	222%	45.00%	45.00%	3.00%
1980	233,600,000	356%	**28.13%**	**25.00%**	**2.55%**
			54.37%		14.16%

BATON ROUGE

Year	Crude Throughput Capacity	% Increase from 1945 Crude Throughput	Response Cost Impact Multipliers of Each Barrel of crude Oil Throughput		
			Low		**White**
1945	47,450,000		100.00%		100.00%
1950	89,425,000	188%	73.47%	70.00%	39.00%
1955	119,209,000	251%	55.11%	55.00%	39.00%
1960	133,225,000	281%	49.32%	50.00%	21.45%
1965	132,130,000	278%	49.72%	50.00%	9.75%
1970	158,410,000	334%	41.47%	40.00%	6.63%
1975	162,425,000	342%	40.45%	40.00%	0.78%
1980	182,500,000	385%	**36.00%**	**35.00%**	**0.66%**
			49.36%		13.05%

BATON ROUGE -- KEY INPUT ADJUSTMENTS ("SWITCHES")

STEP 1 -- Assigning Response Cost Percentages to Years

Waste Adjustment Multipliers

[redacted]

Low Average Assumed Waste Reductions for Periods Noted	Period	Low Multipliers Against Crude for Periods Noted	
30.00%	1949-1959	70%	Control Shift L Brings Low Waste Adjustment Multipliers into Worksheets
50.00%	1960-1969	50%	
60.00%	1970-1979	40%	
65.00%	1980-1985	35%	

[redacted]

Step 1 Results for Refinery Allocation with Waste Multiplier Inputs	
Allocation Period	% of Costs Assigned
1921-1941a	20.36%
1941b-1945a	5.14%
1945b-1955	18.40%
1956-1985	56.10%
	100.00%
1972-1985	1.56%

STEP 2 -- Determining Portion of Costs (Percentages) Associated with Periods of Federal Involvement Attributable to War Products

% Crude attributed to AVGAS WW II	9.5%
% Crude attributed to Other War Products	25%
% Crude attributed to AVGAS/War Products Korean War	1%

Average % Crude attributed to Plancors 1942-1955	2%

White Delay Factor **IN** (100%) or **OUT** (% Below)	**OUT**
Percent of Delay Factor IN if 100% White Delay Factor is OUT	**0.00%**

Step 3 -- Equitable Division of Wartime Related Costs

U.S. Share of AVGAS 1943-1945a (Contract)	100%
U.S. Share of AVGAS 1941b (Pre-Contract)	40%
U.S. Share of AVGAS Korean War	0%
U.S. Share of Other War Products 1941b-1945a	40%

U.S. Share of Plancor Contribution	62.5%

Step 3A -- Equitable Cost Adjustments to take into account facts relevant to certain cost units (No Adjustments in White Allocation)

Cost Unit	% Multiplier	Description of Relevant Facts
Old Silt Pond	10%	Remediation of these units was to address waste from use during 1970s and 1980s. Earlier use of these areas for silt or waste disposal did not commence until after August 1945
Old Silt Pond/Rice Paddy Landfarm	10%	
Rice Paddy Landfarm	10%	
Groundwater Monitoring/Remediation	50%	Exxon has provided insufficient detail on the breakdown of these costs. These three cost components designated as "Solid Waste Management Investigation/Remediation and Other Areas of Contamination" in Exxon expert reports.
Site Assessments	50%	
Soil Remediation	50%	
Miscellaneous/No Description	20%	Exxon has provided no detail on what "Miscellaneous/No Description" costs encompass.

RESULTS SUMMARY	Refinery Units	WHITE
Base United States Allocation % Before Relevant Fact Cost Adjustments	*1.19%*	*19.40%*
Base United States Share Before Relevant Fact Cost Adjustments	*$331,133*	
United States Allocation % After Relevant Fact Cost Adjustments	**0.36%**	
United States Share After Relevant Fact Cost Adjustments	**$100,907**	

SUMMARY OF COSTS AND RELEVANT FACT ADJUSTMENTS

	YEARS CONSIDERED	BASE ALLOCATION %	ALLOCATION ADJUSTMENTS AND MULTIPLIERS		ADJUSTED U.S. ALLOCATION %	EXXON CLAIMED COSTS (INCLUDING INTEREST)	U.S. SHARE ($) BASED ON EXXON CLAIMED COSTS
Old Silt Pond	1946-1959; 1974-1988	1.19%	Remediation of these units was to address waste from use during 1970s and 1980s. Earlier use of these areas for silt or waste disposal did not commence until after August 1945	10.00%	0.12%	$10,594,460	$12,634
Old Silt Pond/Rice Paddy Landfarm	**1946-1988**	1.19%		10.00%	0.12%	$3,506,336	$4,181
Rice Paddy Landfarm	**1946-1988**	1.19%		10.00%	0.12%	$4,908,324	$5,853
Shallow Fill Zone	**1941-1988**	1.19%		100.00%	1.19%	$5,380,522	$64,162
Groundwater Monitoring/Remediation	**Referred to as "Solid Waste Management Investigation/Remediation and Other Areas of Contamination" in Exxon Expert Reports -- Assume average period of 1922-1985**	1.19%	Exxon has provided insufficient detail on the breakdown of these costs. These three cost components designated as "Solid Waste Management Investigation/Remediation and Other Areas of Contamination" in Exxon expert reports.	50.00%	0.60%	$1,001,685	$5,972
Site Assessments		1.19%		50.00%	0.60%	$455,252	$2,714
Soil Remediation		1.19%		50.00%	0.60%	$820,590	$4,893
Miscellaneous/No Description	**Unknown**	1.19%	Exxon has provided no detail on what Miscellaneous/No Description costs encompass.	20.00%	10.00%	$942,644	$11,241
PRP Costs		1.19%		100.00%	1.19%	$158,577	$1,891
						$27,768,390	**$100,907**
							0.36%

SUMMARY AND MULTIPLIERS WORKSHEET

REFINERY ALLOCATION -- MR.WHITE'S "INTER-CLASS" MULTIPLIERS AND 100% CRUDE THROUGHPUT COUNTED FOR WW II AND KOREAN WAR

	Refinery Weight	% of Barrel of Crude Allocated--AVGAS	U.S. "Inter-class" Share Avgas	% of Barrel of Crude Allocated -- Other War Products	U.S. "Inter-class" Share--Other War Products	Plancors Weight	U.S. "Inter-class" Share -- Plancors	*U.S. "Inter-class" Share Avgas (Contract Claim)*		
1941b	100.00%	9.50%	40.00%	25.00%	40.00%	2.00%	62.50%			
1942-1943	100.00%	9.50%	100.00%	25.00%	40.00%	2.00%	62.50%	*100.00%*		
1944-1945a	100.00%	9.50%	100.00%	25.00%	40.00%	2.00%	62.50%	*100.00%*		
1945b-1950a	100.00%	0.00%	0.00%	0.00%	0.00%	2.00%	62.50%			
1950b-1953a	100.00%	1.00%	0.00%	0.00%	0.00%	2.00%	62.50%			
1953b-1955	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	62.50%		U.S. Allocation %	Delay Component
1955	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	62.50%		**1.19%**	**0.00%**

Waste Reduction Multipliers

	1940s Program	1960s Program	RCRA			WHITE			*White Combined*		VARIABLE			LOW		
1949	66%	100%	100%			66%	100%	100%	*66.00%*		50%	100%	100%	70%	100%	100%
1950	70%	100%	100%			66%	100%	100%	*66.00%*		50%	100%	100%	70%	100%	100%
1951	70%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1952	70%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1953	70%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1954	70%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1955	70%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1956	70%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1957	70%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1958	70%	100%	100%			39%	100%	100%	*39.00%*		50%	100%	100%	70%	100%	100%
1959	70%	100%	100%			39%	100%	100%	*39.00%*	43.91%	50%	100%	100%	70%	100%	100%
1960	50%	100%	100%			39%	55%	100%	*21.45%*		35%	100%	100%	50%	100%	100%
1961	50%	100%	100%			39%	33%	100%	*12.87%*		35%	100%	100%	50%	100%	100%
1962	50%	100%	100%			39%	28%	100%	*10.92%*		35%	100%	100%	50%	100%	100%
1963	50%	100%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1964	50%	100%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1965	50%	100%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1966	50%	100%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1967	50%	100%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1968	50%	100%	100%			39%	25%	100%	*9.75%*		35%	100%	100%	50%	100%	100%
1969	50%	100%	100%			39%	25%	100%	*9.75%*	11.35%	35%	100%	100%	50%	100%	100%
1970	40%	100%	100%			39%	17%	100%	*6.63%*		25%	100%	100%	40%	100%	100%
1971	40%	100%	100%			39%	10%	100%	*3.90%*		25%	100%	100%	40%	100%	100%
1972	40%	100%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1973	40%	100%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1974	40%	100%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1975	40%	100%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1976	40%	100%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1977	40%	100%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1978	40%	100%	100%			39%	2%	100%	*0.78%*		25%	100%	100%	40%	100%	100%
1979	40%	100%	100%			39%	2%	100%	*0.78%*	1.68%	25%	100%	100%	40%	100%	100%
1980	35%	100%	100%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1981	35%	100%	100%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1982	35%	100%	100%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1983	35%	100%	100%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1984	35%	100%	100%			39%	2%	85%	*0.66%*		20%	100%	100%	35%	100%	100%
1985	35%	100%	100%			39%	2%	85%	*0.66%*	0.66%	20%	100%	100%	35%	100%	100%

Delay Component Multipliers

1945b	1946	1947	1948	1949	1950	1951	1952	1953	1954	
41.67%	50%	50%	50%	42%	25%	8.33%	0%	0%	0%	OUT
1955	1956	1957	1958	1959	1960					
0%	0%	0%	0%	0%	0%					

(For Easy Substitution to Zero Out Delay Factor)

1945b	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	
0%	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	0%
1955	*1956*	*1957*	*1958*	*1959*	*1960*					
0%	*0%*	*0%*	*0%*	*0%*	*0%*					

Calculation of Average U.S. Degree of Involvement for Use in Delay Component

	Yearly %	% of War Years	Degree of Involvement	Calculation of Average WWII Degree of Involvement
1942	1.18%	26.28%	21%	5.45%
1943	1.18%	26.28%	21%	5.45%
1944	1.28%	28.47%	21%	5.91%
1945a	0.85%	18.98%	21%	3.94%
	4.48%	100.00%		20.75%

Baton Rouge -- Framework with Inputs and Multipliers --

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19				20	21
												WHITE -- U.S. "INTER-CLASS" ALLOCATION, "FEDERAL" PERIOD INVOLVEMENT" PERIOD										LOW "DEGREE OF INOLVEMENT," "U.S.	
		WHITE -- "INTRA-CLASS" ALLOCATION				LOW -- "RESPONSE COST IMPACT"																	
Year	Throughput to be Split	Throughput	1940 Program	1960 Program	Not Used	RCRA	Combined	Adjusted Throughput				Refinery Weight	% of Barrel of Crude Allocated -- AVGAS	U.S. "Inter-class" Share	% of Barrel of Crude Allocated -- Other War Products	U.S. "Inter-class" Share	Plancons Weight	U.S. "Inter-class" Share	U.S. Degree of Involvement for Year	U.S. Allocation %	Delay Component Split	U.S. Allocation with Delay Component	
1910		657,000	100%	100%	100%	100%	100.00%	657,000	0.02%														
1911		2,445,500	100%	100%	100%	100%	100.00%	2,445,500	0.07%														
1912		4,234,000	100%	100%	100%	100%	100.00%	4,234,000	0.11%														
1913		7,227,000	100%	100%	100%	100%	100.00%	7,227,000	0.19%														
1914		6,533,500	100%	100%	100%	100%	100.00%	6,533,500	0.18%														
1915		6,935,000	100%	100%	100%	100%	100.00%	6,935,000	0.19%														
1916		8,614,000	100%	100%	100%	100%	100.00%	8,614,000	0.23%														
1917		13,103,500	100%	100%	100%	100%	100.00%	13,103,500	0.35%														
1918		15,987,000	100%	100%	100%	100%	100.00%	15,987,000	0.43%														
1919		16,133,000	100%	100%	100%	100%	100.00%	16,133,000	0.43%														
1920		15,804,500	100%	100%	100%	100%	100.00%	15,804,500	0.43%														
1921		19,053,000	100%	100%	100%	100%	100.00%	19,053,000	0.51%														
1922		22,447,500	100%	100%	100%	100%	100.00%	22,447,500	0.60%														
1923		23,250,500	100%	100%	100%	100%	100.00%	23,250,500	0.63%														
1924		28,652,500	100%	100%	100%	100%	100.00%	28,652,500	0.77%														
1925		33,762,500	100%	100%	100%	100%	100.00%	33,762,500	0.91%														
1926		34,638,500	100%	100%	100%	100%	100.00%	34,638,500	0.93%														
1927		36,025,500	100%	100%	100%	100%	100.00%	36,025,500	0.97%														
1928		29,200,000	100%	100%	100%	100%	100.00%	29,200,000	0.79%														
1929		29,200,000	100%	100%	100%	100%	100.00%	29,200,000	0.79%														
1930		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	0.98%														
1931		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	0.98%														
1932		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	0.98%														
1933		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	0.98%														
1934		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	0.98%														
1935		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	0.98%														
1936		32,850,000	100%	100%	100%	100%	100.00%	32,850,000	0.88%														
1937		32,850,000	100%	100%	100%	100%	100.00%	32,850,000	0.88%														
1938		32,850,000	100%	100%	100%	100%	100.00%	32,850,000	0.88%														
1939		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	0.98%														
1940		36,500,000	100%	100%	100%	100%	100.00%	36,500,000	0.98%														
1941a	36,500,000	12,166,667	100%	100%	100%	100%	100.00%	12,166,667	0.33%	20.36%	1921-1941a												
1941b	36,500,000	24,333,333	100%	100%	100%	100%	100.00%	24,333,333	0.65%			100%	10%	40%	25%	40%	2%	63%	15%			0.10%	
1942		43,800,000	100%	100%	100%	100%	100.00%	43,800,000	1.18%			100%	10%	100%	25%	40%	2%	63%	21%			0.24%	
1943		43,800,000	100%	100%	100%	100%	100.00%	43,800,000	1.18%			100%	10%	100%	25%	40%	2%	63%	21%			0.24%	
1944		47,450,000	100%	100%	100%	100%	100.00%	47,450,000	1.28%			100%	10%	100%	25%	40%	2%	63%	21%			0.26%	
1945a	47,450,000	31,633,333	100%	100%	100%	100%	100.00%	31,633,333	0.85%	5.14%	1941b-1945a	100%	10%	100%	25%	40%	2%	63%	21%			0.18%	
1945b	47,450,000	15,816,667	100%	100%	100%	100%	100.00%	15,816,667	0.43%			100%	0%	0%	0%	0%	2%	63%		0.01%	100.00%	0.01%	
																			20.75%		0.00%	0.00%	
1946		47,450,000	100%	100%	100%	100%	100.00%	47,450,000	1.28%			100%	0%	0%	0%	0%	2%	63%		0.02%	100%	0.02%	
																			20.75%		0.00%	0.00%	
1947		65,700,000	100%	100%	100%	100%	100.00%	65,700,000	1.77%			100%	0%	0%	0%	0%	2%	63%		0.02%	100%	0.02%	
																			20.75%		0.00%	0.00%	
1948		65,700,000	100%	100%	100%	100%	100.00%	65,700,000	1.77%			100%	0%	0%	0%	0%	2%	63%		0.02%	100%	0.02%	
																			20.75%		0.00%	0.00%	
1949		85,775,000	66%	100%	100%	100%	66.00%	56,611,500	1.52%			100%	0%	0%	0%	0%	2%	63%		0.02%	100.00%	0.02%	
																			20.75%		0.00%	0.00%	
1950a	89,425,000	44,712,500	70%	100%	100%	100%	70.00%	31,298,750	0.84%	7.60%	1945b-1950a	100%	0%	0%	0%	40%	2%	63%		0.01%	100%	0.01%	
																			20.75%		0.00%	0.00%	
1950b	89,425,000	44,712,500	70%	100%	100%	100%	70.00%	31,298,750	0.84%			100%	1%	0%	0%	0%	2%	63%		0.01%	100%	0.01%	
																			20.75%		0.00%	0.00%	
1951		89,425,000	70%	100%	100%	100%	70.00%	62,597,500	1.68%			100%	1%	0%	0%	0%	2%	63%		0.02%	100.00%	0.02%	
																			20.75%		0.00%	0.00%	
1952		89,425,000	70%	100%	100%	100%	70.00%	62,597,500	1.68%			100%	1%	0%	0%	0%	2%	63%		0.02%	100%	0.02%	
																			20.75%		0.00%	0.00%	
1953a	113,880,000	66,430,000	70%	100%	100%	100%	70.00%	46,501,000	1.25%	5.46%	1950b-1953a	100%	1%	0%	0%	0%	2%	63%		0.02%	100%	0.02%	
																			20.75%		0.00%	0.00%	
1953b	113,880,000	47,450,000	70%	100%	100%	100%	70.00%	33,215,000	0.89%			100%	0%	0%	0%	0%	0%	63%		0.00%	100%	0.00%	
																			20.75%		0.00%	0.00%	
1954		116,800,000	70%	100%	100%	100%	70.00%	81,760,000	2.20%			100%	0%	0%	0%	0%	0%	63%		0.00%	100%	0.00%	
																			20.75%		0.00%	0.00%	
1955		119,209,000	70%	100%	100%	100%	70.00%	83,446,300	2.25%	5.34%	1953b-1955	100%	0%	0%	0%	0%	0%	63%		0.00%	100%	0.00%	1.19%
																			20.75%		0%	0.00%	
1956		125,195,000	70%	100%	100%	100%	70.00%	87,636,500	2.36%											0.00%	100%	0.00%	
																			20.75%		0%	0.00%	
1957		124,100,000	70%	100%	100%	100%	70.00%	86,870,000	2.34%											0.00%	100%	0.00%	
																			20.75%		0%	0.00%	
1958		129,575,000	70%	100%	100%	100%	70.00%	90,702,500	2.44%											0.00%	100%	0.00%	
																			20.75%		0%	0.00%	
1959		132,933,000	70%	100%	100%	100%	70.00%	93,053,100	2.50%											0.00%	100%	0.00%	
																			20.75%		0%	0.00%	
1960		133,225,000	50%	100%	100%	100%	50.00%	66,612,500	1.79%											0.00%	100%	0.00%	
																			20.75%		0%	0.00%	
1961		133,225,000	50%	100%	100%	100%	50.00%	66,612,500	1.79%														
1962		140,890,000	50%	100%	100%	100%	50.00%	70,445,000	1.90%														
1963		133,225,000	50%	100%	100%	100%	50.00%	66,612,500	1.79%														
1964		133,225,000	50%	100%	100%	100%	50.00%	66,612,500	1.79%														
1965		132,130,000	50%	100%	100%	100%	50.00%	66,065,000	1.78%														
1966		132,860,000	50%	100%	100%	100%	50.00%	66,430,000	1.79%														
1967		138,335,000	50%	100%	100%	100%	50.00%	69,167,500	1.86%														
1968		152,935,000	50%	100%	100%	100%	50.00%	76,467,500	2.06%														
1969		158,410,000	50%	100%	100%	100%	50.00%	79,205,000	2.13%														
1970		158,410,000	40%	100%	100%	100%	40.00%	63,364,000	1.70%														
1971		158,410,000	40%	100%	100%	100%	40.00%	63,364,000	1.70%														
1972		158,410,000	40%	100%	100%	100%	40.00%	63,364,000	1.70%														
1973		153,300,000	40%	100%	100%	100%	40.00%	61,320,000	1.65%														
1974		162,425,000	40%	100%	100%	100%	40.00%	64,970,000	1.75%														
1975		162,425,000	40%	100%	100%	100%	40.00%	64,970,000	1.75%														
1976		166,075,000	40%	100%	100%	100%	40.00%	66,430,000	1.79%														
1977		186,150,000	40%	100%	100%	100%	40.00%	74,460,000	2.00%														
1978		186,150,000	40%	100%	100%	100%	40.00%	74,460,000	2.00%														
1979		182,500,000	40%	100%	100%	100%	40.00%	73,000,000	1.96%														
1980		182,500,000	35%	100%	100%	100%	35.00%	63,875,000	1.72%														
1981		182,500,000	35%	100%	100%	100%	35.00%	63,875,000	1.72%														
1982		173,010,000	35%	100%	100%	100%	35.00%	60,553,500	1.63%														
1983		166,075,000	35%	100%	100%	100%	35.00%	58,126,250	1.56%														
1984		166,075,000	35%	100%	100%	100%	35.00%	58,126,250	1.56%														
1985		166,075,000	35%	100%	100%	100%	35.00%	58,126,250	1.56%	56.10%	1956-1985												
		6,456,996,000						3,716,506,650	100%	100%													

No U.S. Liabilty

NO U.S. INVOLVEMENT -- DELAY COMPONENT ONLY

No U.S. Liabilty

BAYTOWN

Year	Crude Throughput Capacity	% Increase from 1945 Crude Throughput	Response Cost Impact Multipliers for Each Barrel of Crude Oil Throughput		
			Low		**White**
1945	65,700,000		100.00%		100.00%
1950	94,900,000	144%	69.23%	70.00%	71.00%
1955	111,325,000	169%	59.02%	60.00%	13.60%
1960	106,689,500	162%	61.58%	60.00%	3.00%
1965	100,375,000	153%	65.45%	65.00%	3.00%
1970	125,925,000	192%	52.17%	50.00%	3.00%
1975	146,000,000	222%	45.00%	45.00%	3.00%
1980	233,600,000	356%	**28.13%**	**25.00%**	**2.55%**
			54.37%		14.16%

BATON ROUGE

Year	Crude Throughput Capacity	% Increase from 1945 Crude Throughput	Response Cost Impact Multipliers of Each Barrel of crude Oil Throughput		
			Low		**White**
1945	47,450,000		100.00%		100.00%
1950	89,425,000	188%	73.47%	70.00%	39.00%
1955	119,209,000	251%	55.11%	55.00%	39.00%
1960	133,225,000	281%	49.32%	50.00%	21.45%
1965	132,130,000	278%	49.72%	50.00%	9.75%
1970	158,410,000	334%	41.47%	40.00%	6.63%
1975	162,425,000	342%	40.45%	40.00%	0.78%
1980	182,500,000	385%	**36.00%**	**35.00%**	**0.66%**
			49.36%		13.05%

Characterization of Baytown Ordnance Works (aka Tank 3000) Free Product Hydrocarbons

									Adjustments for Plume Thickness			
Wells Analyzed 2/92								LPU/PXU %	Thickness	LPU/PXU Adjusted	Other %	Other Adjusted
MW-4	Reformate	88%	Kerosene	12%	Some Crude Oil	1%	101%	12%	5.14	0.62	88%	4.52
MW-9	Reformate	67%	Kerosene	33%	Some Crude Oil	1%	101%	33%	4.68	1.54	67%	3.14
MW-33	Kerosene	100%					100%	100%	1.13	1.13	0%	0.00
MW-38	Alkylate	24%	Kerosene	2%	Virgin/CAT Natphta	74%	100%	2%	1.13	0.02	98%	1.11
MW-39	Linear Paraffins	40%	Virgin Naphta	40%	Kerosene	20%	100%	60%	5.32	3.19	40%	2.13
MW-42	Alkylate	25%	LPU Product	5%	Virgin/CAT Natphta	70%	100%	5%	4.26	0.21	95%	4.05
MW-43	Alkylate	25%	CAT Naphtha	67%	Linear Paraffins	8%	100%	8%	5.62	0.45	92%	5.17
MW-44	Alkylate	23%	A8 Btms	30%	Linear Paraffins	4%	100%	4%	5.5	0.22	96%	5.28
	CAT Naphta	43%								0.00	100%	0.00
MW-45	Linear Paraffins	1%	A8 Btms	4%	C8 Aromatics	95%	100%	96%	5.1	4.90	4%	0.20
MW-46	Alkylate	100%					100%		3.58	0.00	100%	3.58
MW-48	Linear Paraffins	1%	A8 Btms	3%	C8 Aromatics	97%	101%	98%	1.96	1.92	2%	0.04
MW-52	Virgin Naphtha	10%	Linear Paraffins	1%	C8 Aromatics	85%	100%	86%	7.06	6.07	14%	0.99
	A8 Btoms	4%								0.00	100%	0.00
										0.00	100%	0.00
Wells Analyzed 11/93										0.00	100%	0.00
MW-73	Virgin Naphtha	30.0%	Alkylate	47%	C8 Aromatics	13%	90%	13%	5.45	0.71	87%	4.74
MW-72	Virgin Naphtha	20.0%	Alkylate	80%			100%	0%	4.60	0.00	100%	4.60
MW-82	Virgin Naphtha	7.0%	Alkylate	93%			100%	0%	4.75	0.00	100%	4.75
MW-84	Virgin Naphtha	30.0%	Alkylate	70%			100%	0%	3.75	0.00	100%	3.75
MW-80	Virgin Naphtha	40.0%	Alkylate	60%			100%	0%	1.65	0.00	100%	1.65
										0.00	100%	0.00
Wells Analyzed 11/94										0.00	100%	0.00
MW-51	Virgin Naphtha	71.0%	C8 Aromatics	15%	Reformer Bottoms	10%	96%	15%	1.2	0.18	85%	1.02
MW-57	C8 Aromatics	80.0%	Virgin Naphtha	19%	Linear Paraffins	1%	100%	81%	3.55	2.88	19%	0.67
MW-58	CAT Naphtha	66.0%	Alkylate	30%	Linear Parrafins	4%	100%	4%	4.04	0.16	96%	3.88
MW-65	Alkylate	80.0%	CAT Naphtha	20%			100%	0%	2.85	0.00	100%	2.85
							2089%	617%		24.20		58.12
								29.54%		29.40%		70.60%

82.32

Red plume thickness denotes 11-22-94 plume thickness figure BAYTECH-00045801

11-93 and 11-94 samples from BAYC-00051449, 455

Note: C8 Aromatics also referred to as Mixed Xylenes (feedstock to PXU; processed at PFU)

Note: Linear Paraffins also referred to as LPU product (feedstock to LPU)

Assumptions: FromBAYTECH-00045792 (interpreting 12 hydrocarbon samples and source ID in BAYTECH-00010561/564/565 Feb. 2, 1993 Phase III Subsurface Invest. Rep.

Kerosene is LPU Feedstock

LPU Product is from LPU

Mixed xylenes is PXU feedstock

Percentages >100% are due to rounding

ANALYSIS OF U.S. NEXUS TO 22 SWMUS INVESTIGATED BY EXXON						
Information on SWMUs			# of wells, soil borings and test pits planned during the investigation			Dates of Use
SWMU 47	Waste Clay pile (1 million tons) in northern portion of site used to filter lubricating oils	32 (present) to 56 (historical) acres, 530,000-1,000,000 cu yds of waste	8	12	0	Pre-1947-1977
SWMU 54	Small Landfill in southern portion of Site for disposal of oily sludge and dredge spoil	One acre, 300 cu yds of waste	2	4	0	>March 1973- Winter 1979 Prior to 1930 used for disposal of dredge spoils
SWMU 55/56	Landfarm for treating lead-containing sludge	55 -- .54 acre, 3,700 cu yds waste; 56 -- 4.2 acres 25,000 cu yds waste; 6.9 gallons of treated sludge from Separator 3M	0	5	4	>1962-<1973 (55); <1969-Feb 1974 (56)
SWMU 57	Landfarm east of Separator 10 for disposal of sludge from nearby separators					-
SWMU 58	Landfarm	1.7 acres 1,300 cu yds waste	4	0	0	Landfarming from <1969-Feb 1974
SWMU 59	Old facility No. N, Old Sludge Pit/Landfill -- Oils sludge pit east of Houston Ship Channel for disposal of sludge	4.2 acres 50,000 cu yds waste	1	11	2	1930-<1947
SWMU 69	Old Facility No. AA, Old Separator Area, Old Separator 2	8.2 acres; Unknown cu yds of waste				1930-<1962
SWMU 60	Old Facility No. O Landfarm	16 acres (9.2 acres landfarm area) 8,000 cu yds waste	10	5	0	1930-1947 for drdge spoil disposal; 1947 (earthwork)-1973; 1957-1973 (landfarm)
SWMU 61	Landfarm	9.2 acres 800 cu yds waste	5	7	0	1956-1962 to 1973-1974
SWMU 62	Old Facility No. Q; Landfill (five potential impoundments, burn pit, garbage disposal)	29-50 acres Unknown cu yds waste	0	12	5	1919-1971
SWMU 64	Old Fascility No. S Landfarm	8.1 acres (landfarm area smaller) 1,500 cu yds	2	4	0	unknown-1971
SWMU 65	Old Facility No. T Landfarm	4 acres 500 cu yds waste	6	0	0	1969-1971
SWMU 66	Old Facility No. U Landfarm	13 acres 9,500 cu yds waste	4	5	0	1962 (or 1969) - 1972
SWMU 67	Landfarm	12 acres 4,000 cu yds waste	4	5	0	1956-1962 to 1973-1974
SWMU 70	Old Facility No. BB; Old Separator 3; Separator 3M Surface Impoundment near Separator 3M for disposal of Oily Sludge	8.6 acres (5.3 acres clean closed)	4	4.5	0	1927-1985
SWMU 71	Old Separator 12; Old Facility No. CC Surface Impoundment, Landfill	0.73 acre Unknown cu yds waste	0	1.5		1932-1947 to <1956
SWMU 72	Old Facility No. DD; Surface Impoundment; Sludge Pit near Hydrocodimer Plant	1.5 acres Unknown cu yds waste	0	5.5	0	<1927-to 1947-1956
SWMU 73	Old Facility No. EE Slush Pit, Surface Impoundment	0.15 acre Unknown cu yds waste	0	3.5	0	<1930 to 1947-1956
SWMU 74	Old Separator 1; Old Facility No. FF	0.16 acre Unknown cu yds waste	0	5	0	<1930 to 1947-1957
SWMU 75	Old Facility GG; Landfarm	3.9 acres Unkown cu yds waste	5	0	0	1965-1970
SWMU 83	Old Aeration Basin	8.5 acres 21,000,000 gallon capaicty	0	6	8	1956 (liquid present); 1967-present -- became biolgogical treatment basin in 1985 for WOU
SWMU 90	Old Separator 4 Impoundment; Landfarm	0.15 acre Unknown cu yds waste	0	4	1	<1927-<1932
		Total wells, soil borings and test pits	55	100	20	
		Total U.S. Nexus	23	60	7	
		Total no U.S. Nexus	32	40	13	
Percentage of of wells, soil borings and test pits for SWMUs with U.S. Nexus			41.82%	60.00%	35.00%	**45.61%**